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ABSTRACT

This document focuses on the history and organization of physical planning in the Netherlands. It is part of a series of bulletins on the human and physical geography of the Netherlands. Information, presented in expository, tabular, photographic, and cartographic form, is arranged in four major sections. Section I, which contains the bulk of the document, discusses the history of physical planning in the Netherlands, rules of physical planning, planning agencies and instruments, disadvantages of planned over natural development, and physical planning policy in practice. Emphasis is placed on the scarcity of space in the Netherlands, impoverishment of the environment due to rapid development, and national and regional attempts to control urbanization. Section II presents statistics on area and land use, population, agriculture, national income, foreign trade, and manufacturing. Section III, entitled "Brief Notes," surveys problems of traffic, water control plants, and physical planning. Section IV describes the aims and activities of the Information and Documentation Centre for the Geography of the Netherlands. (DB)

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FOREWORD

The leading article in this issue of the IDG Bulletin for 1979/1980 reviews the history and organisation of physical planning in the Netherlands. In the light of the contents of the requests for information received by the IDG, this is a subject which enjoys much interest among foreign geographers.

In addition, you will find the usual chapters devoted to: Statistics – Brief Notes – About the IDG – Bibliography.

This edition is the fifth in the series of bulletins in which this arrangement has been employed. Earlier bulletins (still available in several language versions for some years) contained leading articles on the following themes:

year	title of leading article	still available in the following languages *)
1975/76	The Dutch Landscape	G
1976/77	Industry in the Netherlands	D, E, F, G
1977/78	Five Agricultural Undertakings	D, E, F, G, S
1978/79	The Netherlands ± Water	D, E, F, G, S

*) D = Dutch, E = English, F = French, G = German, S = Spanish.

The number of interested people who are sent a free copy of the Bulletin each year has increased so much, especially in the countries neighbouring the Netherlands, that the IDG has been compelled to carry out a check on its address list. The check consists of the following questions:

- is the address to which the Bulletin is sent correct?
- does the addressee wish to continue receiving the Bulletin each year?

You are kindly requested to fill in the answers to these questions on p. 61, to remove the page and return it to the IDG.
We regret that we shall be forced to assume that persons or bodies who do not respond no longer wish to receive copies of the Bulletin. It will be apparent that this measure has been made necessary by financial constraints.

As always, the IDG would welcome your comments and observations on this Bulletin and would be pleased to receive your suggestions for future editions.

Utrecht/The Hague
Autumn, 1980

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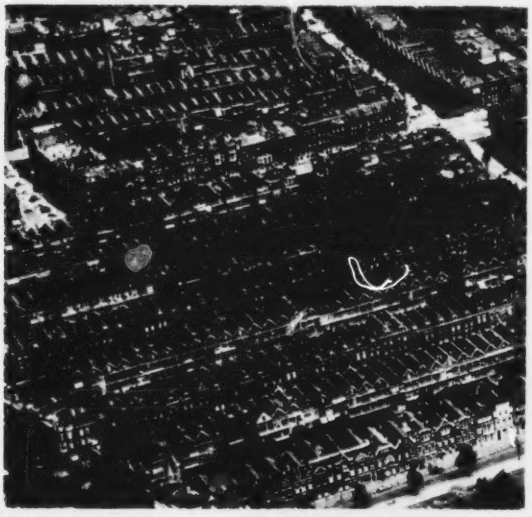

Photograph 1 — *The ordered space of the Netherlands (from top left to bottom right: canal girdles of Amsterdam — defence works of Heusden — 19th century residential area of Rotterdam — new residential estate in Brielle — farm parcels in the region of the great rivers — Liesbos (Wood W. of Breda)).*

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I – PHYSICAL PLANNING IN THE NETHERLANDS

I.1. Introduction

Many foreign visitors to the Netherlands are struck by the highly ordered and planned character of the towns and countryside. The concentric canal girdles and star-shaped defence works in the towns of earlier centuries, the rectilinear urban extensions from the turn of the century and the rather more fanciful, but nevertheless carefully planned extensions of recent decades, the farm parcels bounded by straight ditches and even woods in which the trees are planted in rows between straight paths, all give the impression of a landscape upon which man has left his mark in a pronounced and well thought-out fashion (photo I).

A number of factors, common to all western industrialised countries, can be adduced in explanation of why, particularly in recent decades, much attention is being paid to physical planning, but there are also causes which are specifically related to the situation in the Netherlands. An example of the first category would be the increased use of space per inhabitant: more space around the dwelling, greater demand for recreational space, greater mobility. Among the group of factors relating specifically to the Netherlands is certainly the high population density and related highly intensive use of space (fig. 1).

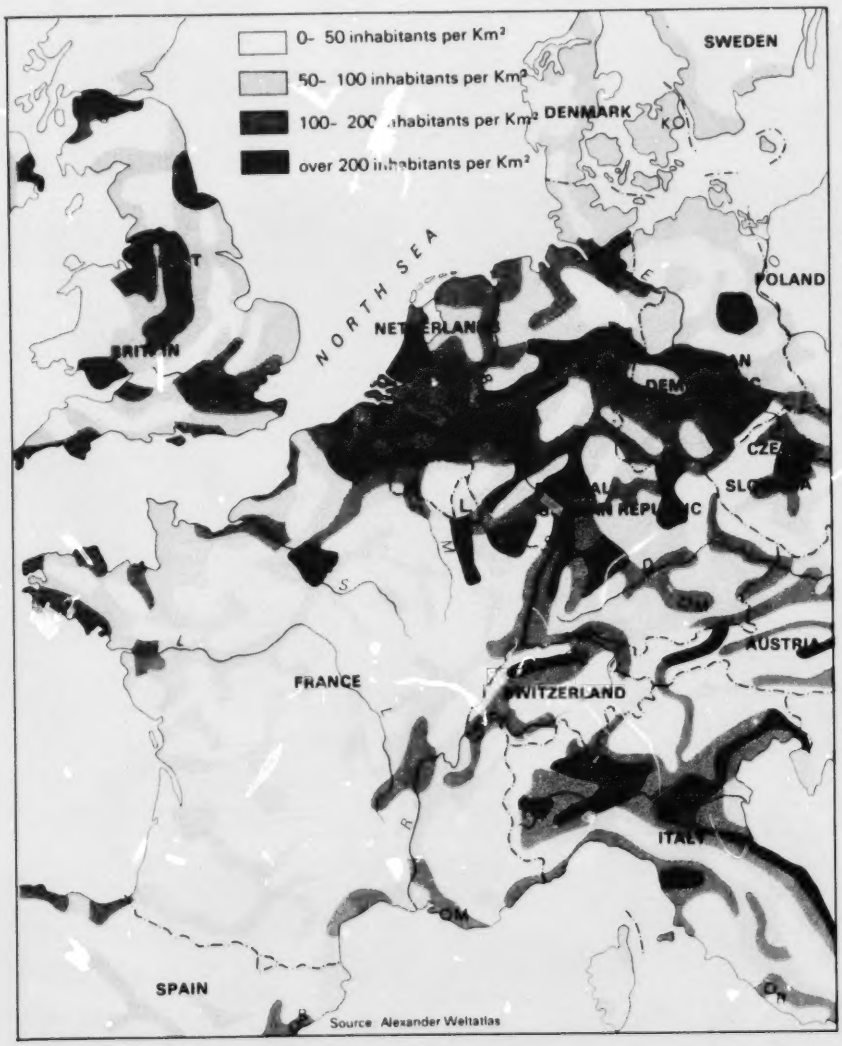

fig. 1 – *Population density in Western Europe.*

In comparison with a number of surrounding countries the Netherlands has the highest population density (Table 1).

Table 1	Netherlands	Belgium	France	U.K.	German Fed. Republic	Denmark
population per km^2	336*)	322	98	229	247	118
av. farm size (ha.)	15,1	14,7	28,0	70 2	15,4	23,6
hectares of woodland per 1,000 inhab.	22,3	62,7	278,7	36,1	117,3	98,2
km of metalled roads per 100 km^2	199	412	144	142	191	154
no. of towns > 100,000 population per 10,000 km^2	4,1	2,0	0,9	2,4	2,1	0,9

Source: Eurostat 1979; Grote Bosatlas.

*) The population density figure for the Netherlands given here is lower than that in Table 9 on p. 37 because this figure is based on the **total** area (incl. territorial waters etc.).

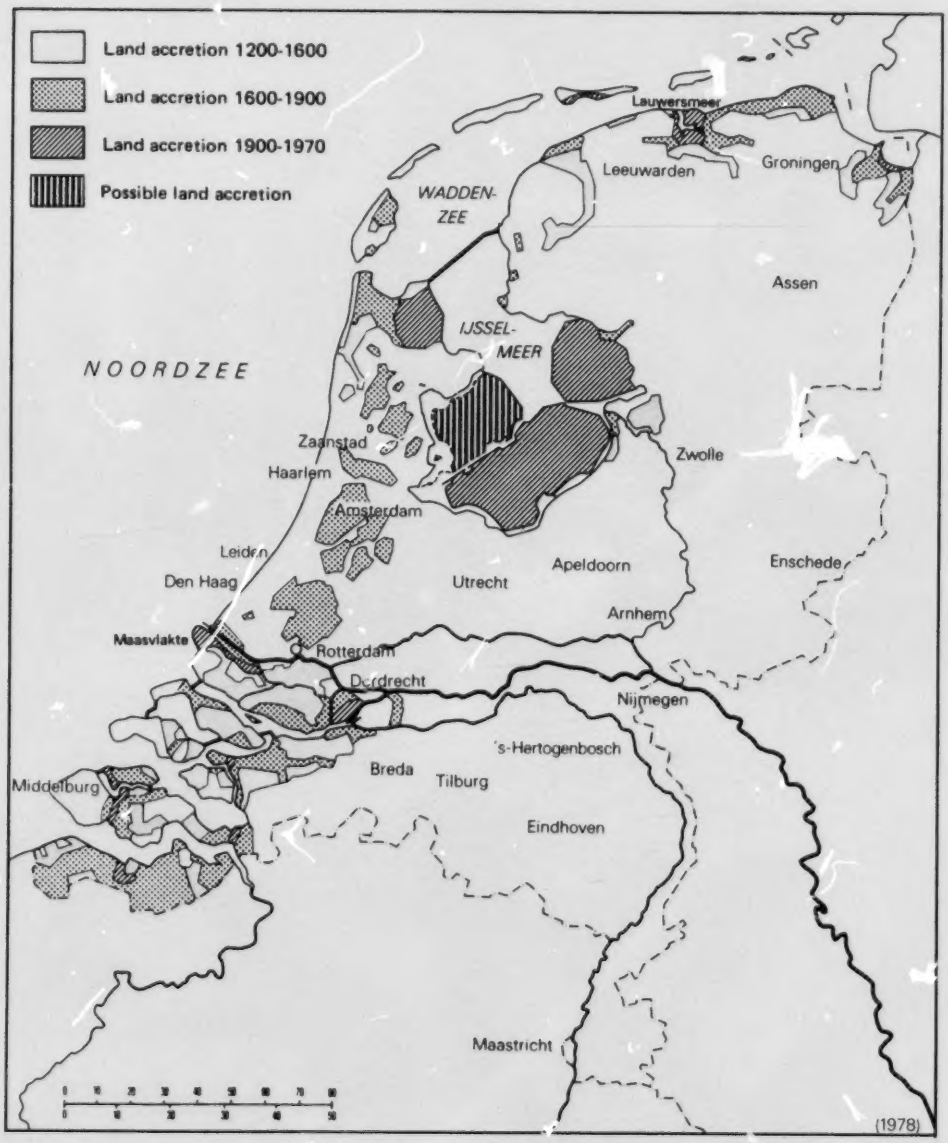

fig. 2 — *Land accretion since 1200.*

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Many aspects of land use are affected by this and also show extreme figures. Table 1 shows, for example, that the Dutchman has to make do with by far the smallest area of woodland and that the Netherlands has in proportion the highest number of large towns. Only in Belgium is the average size of the farms somewhat smaller than in the Netherlands, and also in respect of the density of the road network, the Netherlands is exceeded only by Belgium. It need hardly be said that the high population density gives rise to regular conflicts about the use of land. Choices have constantly to be made and the making of choices requires a well thought-out policy.

A second factor which has played a part, particularly in the "Low Netherlands" (North and West), is the fact that large areas have here been gained or regained from the water. Since the Middle Ages areas of land along the coast have been drained (particularly in the north and southwest), lakes pumped dry (mainly in North and South Holland) and swamps drained and reclaimed (along the rivers and in the peat areas). Lastly, during the present century, a large part of the former Zuyder Zee was won back from the water (fig. 2).

In respect of all these areas a plan was first prepared for draining and generally also for the laying out of the territory. There was not usually here a gradual process of colonisation and taking into cultivation.
Relatively old polders, such as the Beemster (N. of Amsterdam; see fig. 3), which was drained in 1612, consequently show a pattern of parcels, roads and settlements which is already as rectilinear as that in the 20th century Zuyder Zee polders.

Thirdly, it may be remarked that the government in the Netherlands, by comparison with other Western European countries, concerned itself at a relatively early date with physical planning. As will appear from the following section, the first piece of national legislation in this field dates from as early as 1901.

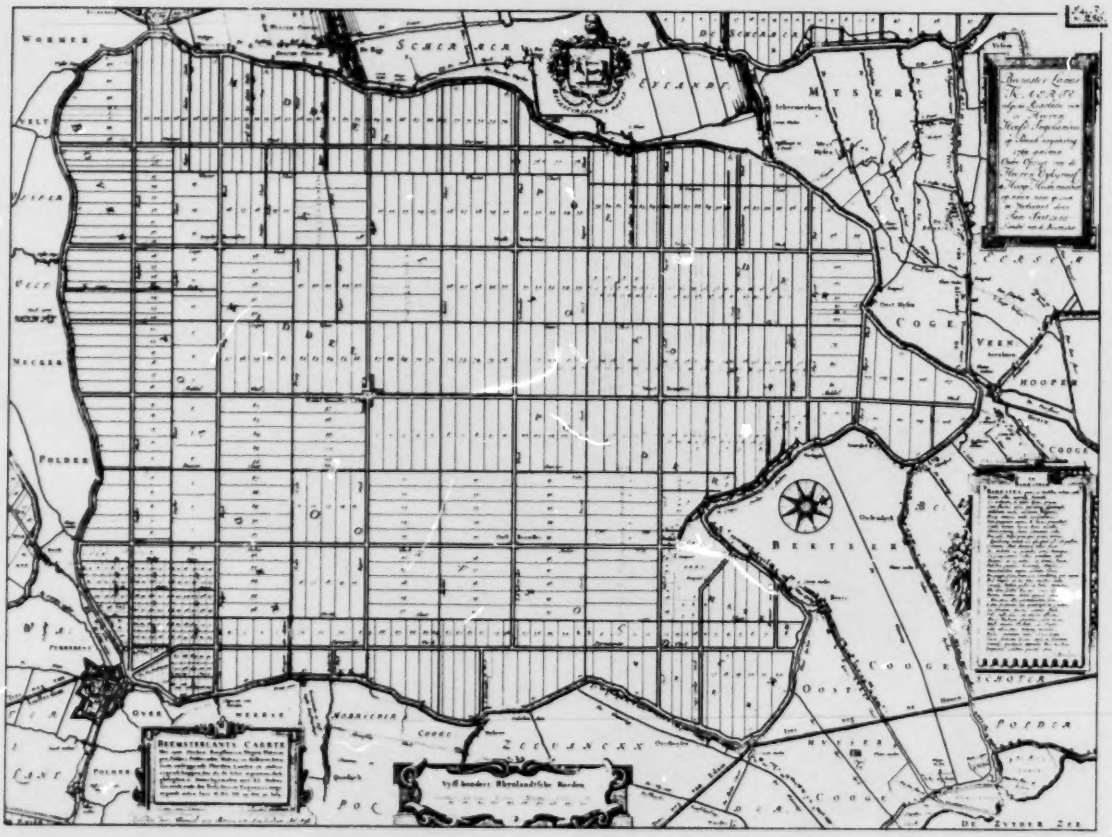

fig. 3 — *The Beemster Droogmakerij (drained lake), map of 1658, by Daniel van Breen, revised by Jan Swizers in 1769.*

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I.2. History of Physical Planning *)

Physical planning in the Netherlands, and particularly its legal regulation, has developed from public housing. The 1901 Housing Act, which was a public housing measure and was mainly a reaction against the bad living conditions in the slum districts, also contained a provision to make possible the zoning of land for the lay-out of "streets, squares and canals". It was some years before it was acknowledged that the spaces in between could also be the subject of zoning and not until 1921 was the limitation to streets, squares and canals replaced by a more general zoning provision.

Nevertheless, up to 1937, the origin of the act (a measure for the extension of towns and villages) continued to prevent the use of the extension plans as a means for controlling development in the rural parts of municipalities. Meanwhile (in 1931) a provision for regional (inter-municipal) plans was incorporated in the legislation and planners were already beginning to speak of a "National Plan".

In 1938 a State Commission was given the task of investigating what changes were required in the Housing Act. The Commission's proposal for a new Housing Act was published in April 1940, but nothing was done because of the German occupation, which followed soon after, although the National Planning Service (the forerunner of the present National Physical Planning Agency) was set up in 1941 as a result of the Commission's recommendations and in 1942 a provision was made for the National Plan and regional plans. This measure was retained after liberation and incorporated in an act in 1950.

Meanwhile a new commission was appointed to investigate what changes were necessary. It reported in 1950 with proposals for two new acts: a physical planning act to deal with physical planning, and a housing act to deal with public housing. The government accepted the commission's recommendations only in part and introduced two bills in 1956, one for a Physical Planning Act and a new Housing Act. After a difficult passage through parliament, these proposals became law, with numerous amendments, in 1962. They came into operation on 1st August 1965. Because of recent developments new legislation is again in preparation.

The following are some aspects of post-war developments:

- physical planning received a more scientific basis partly as a result of the development of "planologie" (planning science), which is now taught at seven Dutch universities and colleges of higher education;
- in addition to the planning of urban areas, there arose an interest in rural planning;
- associated with the above, there has been an enlargement of scale: physical planning should not be carried out purely from the local standpoint and to serve local interests, but should also extend to the regional, national and international levels;
- the laying down of a physical structure for a particular point of time in the future has been replaced by an attempt to achieve a more flexible steering of constantly changing developments: so-called "process planning";
- more attention is being paid to the place of physical planning in the total field of social forces;
- increased public participation at the regional and national, as well as at the local level.

Although a Ministry of Housing and *Physical Planning* has been in existence since 1965, there is an awareness that physical planning does not form an isolated field of political activity, but has repercussions on other fields such as agriculture, traffic and housing. Physical planning which is related to one of these sectors is referred to as *"sector planning"*. The aim of physical planning is to co-ordinate the spatial aspects of the decisions in these sectors into a coherent spatial policy. It does this by proceeding according to objectives which are related to particular aspects such as an economic or a social and cultural one. This is referred to as *"facet planning"*, and in it the boundaries between the different sectors may be overstepped (fig. 4) to achieve an integration of the various sector policies. Where the aim is also to achieve an integration of the different forms of facet planning, the term *"integrated planning"* is used.

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*) The first part of this section is derived – with some minor alterations – from National Physical Planning Agency (RPD) publication 74-3: "De Spelregels van de Ruimtelijke Ordening" (The rules of physical planning).

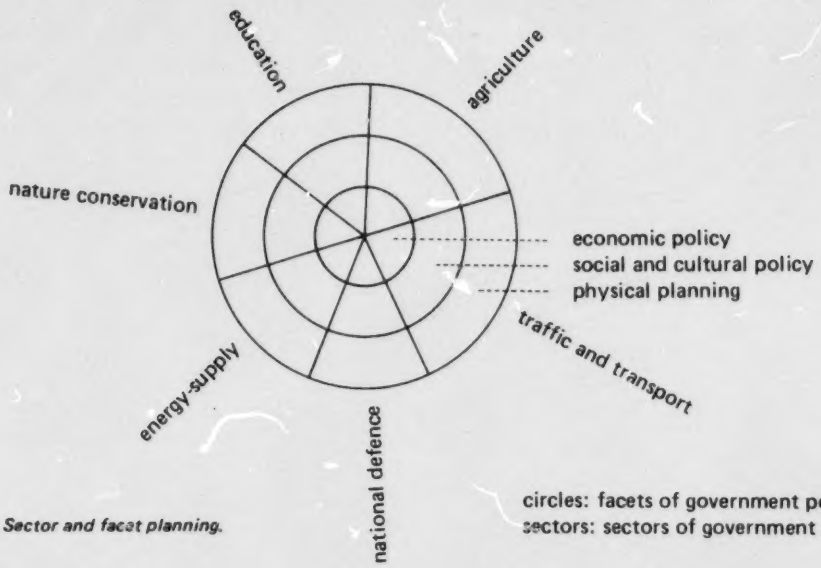

fig. 4 — *Sector and facet planning.*

A good illustration of these different forms of integration is to be found in the increasingly apparent relationship after 1945 between the policy of physical dispersion and the regional development policy.

Since the early 1950's a regional policy has been followed in the Netherlands which has been aimed at bringing about a balanced economic and spatial development of the different regions of the country. During the years there have been marked changes in the objectives of this policy.

In the 1950's there was as yet no sign of an interplay between regional economic policy and the spatial policy. There were even contradictory objectives operating at the same time: in order to combat unemployment in the predominantly agricultural northern provinces, subsidies were paid to people who were willing to move to towns with a better employment situation. The majority of such towns are situated in the Randstad. But the physical planning policy of that time, as set out, for example, in the "West and Remainder of the Netherlands" report of 1956 and the "Development of the West of the Country" report of 1958, had the contrary aim of relieving the congested West somewhat by means of dispersal measures.

During the 1960's a clearer link was made with the spatial policy, as set out in the First (1960) and Second (1966) Reports on Physical Planning in the Netherlands.

These reports show an increasing concern about the growing congestion in the Randstad. Development areas, such as the Northern provinces and Zeeland, were now also given a role in the efforts to distribute population and economic activity more evenly over the country. Ports and industrial towns in the North and South West and elsewhere had to form a counter-balance to the Randstad. Offices can also make a contribution to this and the government is setting an example by displacing a number of services from The Hague to towns in the North, East and South of the country.

In 1977 appeared the Regional Economic Policy Report and the Urbanisation Report (the most important part of the Third Report on Physical Planning in the Netherlands).

In these reports the co-ordination between the two types of policy has taken still more concrete form. The Urbanisation Report, for example, states one of its aims explicitly to be: "the reduction of regional lags and inequalities in the field of socio-economic development". Regional plans are now also being drawn up in which there is truly integrated planning in respect both of "sectors" and "facets".

This applies, for example, to the "Integral Structure Plan for the North of the Country" (1978).

I.3. Rules of Physical Planning *)

Physical planning takes place within the administrative organisation of the country. This consists, for present purposes, of three administrative levels: nation, provinces and municipalities, each with its own political organs (government and States General; Provincial and Deputed States; municipal council and Mayor and Aldermen). The decisions in the field of physical planning are also entrusted to these general administrative bodies: physical planning is politics.

The relationships which prevail between these three administrative levels are determined by the decentralised structure of the Dutch state. Each level is free in principle to pursue its own policy and take its own measures, provided it does not come into conflict with the policy or measures of a higher authority. This decentralised structure is also reflected in the spatial policy and the Physical Planning Act. Partly because of this the physical plans at each successively lower level of administration show a decreasing degree of abstraction and become increasingly concrete. Thus it is particularly at the municipal level that the different policy lines are converted into measures which are directly binding on the citizen. Formally speaking, the plans of the lower tier authority need not even conform with the plans or policy of the higher tier, although the latter does have the powers to intervene if the lower tier contravenes its policy in an unacceptable manner (e.g. by withholding approval).

Both the *agencies* which are concerned with physical planning, and the *instruments* which they employ, can be arranged according to the three administrative levels just described.

I.3.1. Agencies

Fig. 5 shows in diagrammatic form the agencies concerned with physical planning.

At the *national level*, the *government* determines the national physical planning policy. The *Minister of Housing and Physical Planning* is responsible for preparing the policy.
The practical preparation of the policy is one of the tasks of the *National Physical Planning Agency*, which also carries out or commissions the necessary research. The agency also ensures that there are no infringements of the Physical Planning Act. For this purpose it employs five *Physical Planning Inspectors*, each of whom looks after two or three provinces and forms a link between the central government, on the one hand, and the provinces and municipalities, on the other.

The administrative co-ordination of the policy is prepared in the *Council for Physical Planning and Environmental Hygiene*, in which, *inter alia*, nearly all government ministers are represented. This council, as well as the Minister of Housing and Physical Planning, receive advice from the *National Physical Planning Committee* (RPC) and the *Advisory Council for Physical Planning* (RARO).

The RPC is a committee of civil servants, composed of senior officials from nearly all the government departments. It gives advice on such matters as administration of the Physical Planning Act, questions of administrative organisation etc. The RARO is completely different in character. It consists of representatives of social organisations (e.g. employees and labour, nature protection organisations, transport organisations) and experts in the administrative and technical fields. The RARO, which consists of sixteen sub-committees, advises the ministers, if requested or on its own initiative, on major matters or principles of general concern in the field of physical planning. It also co-ordinates public participation at the national level.

The role of the *States General* (Parliament), which consists of the 150 directly elected members of the Second Chamber and the 75 members of the First Chamber elected by the Provincial States, is mainly a controlling one. The Second Chamber can amend bills introduced by the Government and is also able to introduce bills on its own initiative. The First Chamber can only accept or reject bills passed by the Second Chamber. Lastly, the Crown, by which is understood the Queen with her Ministers, is charged with executive power and also functions as the highest appeal body where there are differences with lower tier authorities.

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*) In this section detailed use has been made of publication no. 79 – 1 of the National Physical Planning Agency: "Spelregels van de Ruimtelijke Ordening".

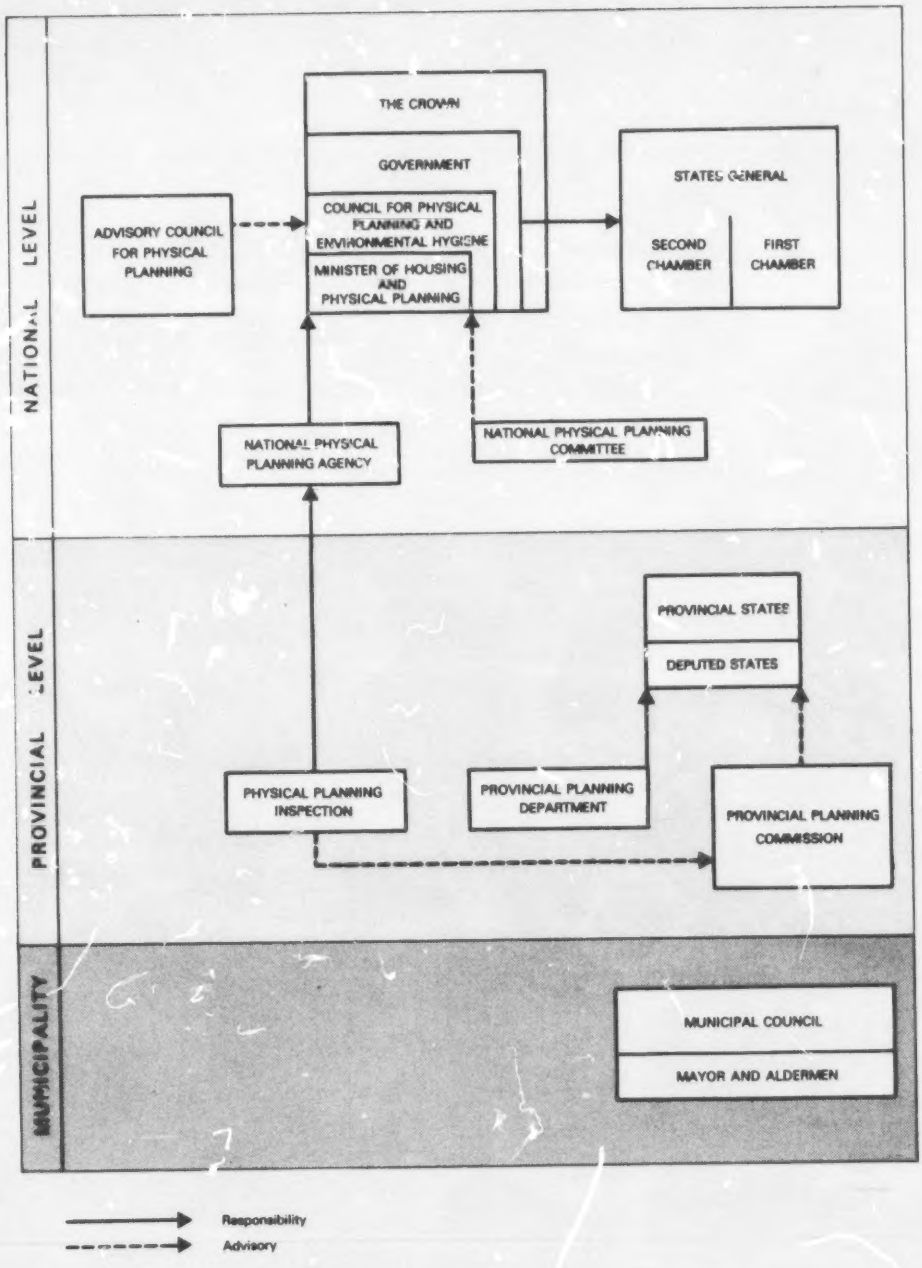

fig. 5 – *Physical planning agencies.*

The agencies at the *provincial level* show clear parallels with those at the national level. At this level the physical plans (e.g. regional plans, reports) are prepared by Deputed States (G.S.), the "executive committee" of the directly elected Provincial States. In carrying out this function, G.S. are advised by the *Provincial Planning Commission,* which has common features with both the RPC and the RARO at the national level (administrative coordination and advice, as well as acting as a forum for non-official experts and representatives of particular interest groups). The physical planning inspector is also a member of this commission. The practical preparation and research for plans are carried out by the Provincial Planning Departments. The final approval of plans is the task of the *Provincial States.*

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At the *municipal level*, physical plans are prepared by Mayor and Aldermen, who also have the task of policy implementation. There is no provision for preparatory consultation, official or otherwise, by a planning commission or advisory council at the municipal level. For their practical activities large municipalities have their own *planning departments*. Smaller municipalities rely upon private planning consultants for this work.

I.3.2. Instruments

In the first place, the planning instruments (fig. 6) enable the different administrative tiers to interpret their spatial policies in the form of physical plans (regional, structure and development plans), as well as reports and structure sketches. These are also instruments which are designed to enable the spatial policy of a particular administrative tier as laid down in a plan or report to be realised through its influence on the spatial policy of the lower tier authority (instructions, directions etc.). Lastly, particularly at the municipal level, there are instruments which give the spatial policy form in ways which directly affect the citizen.

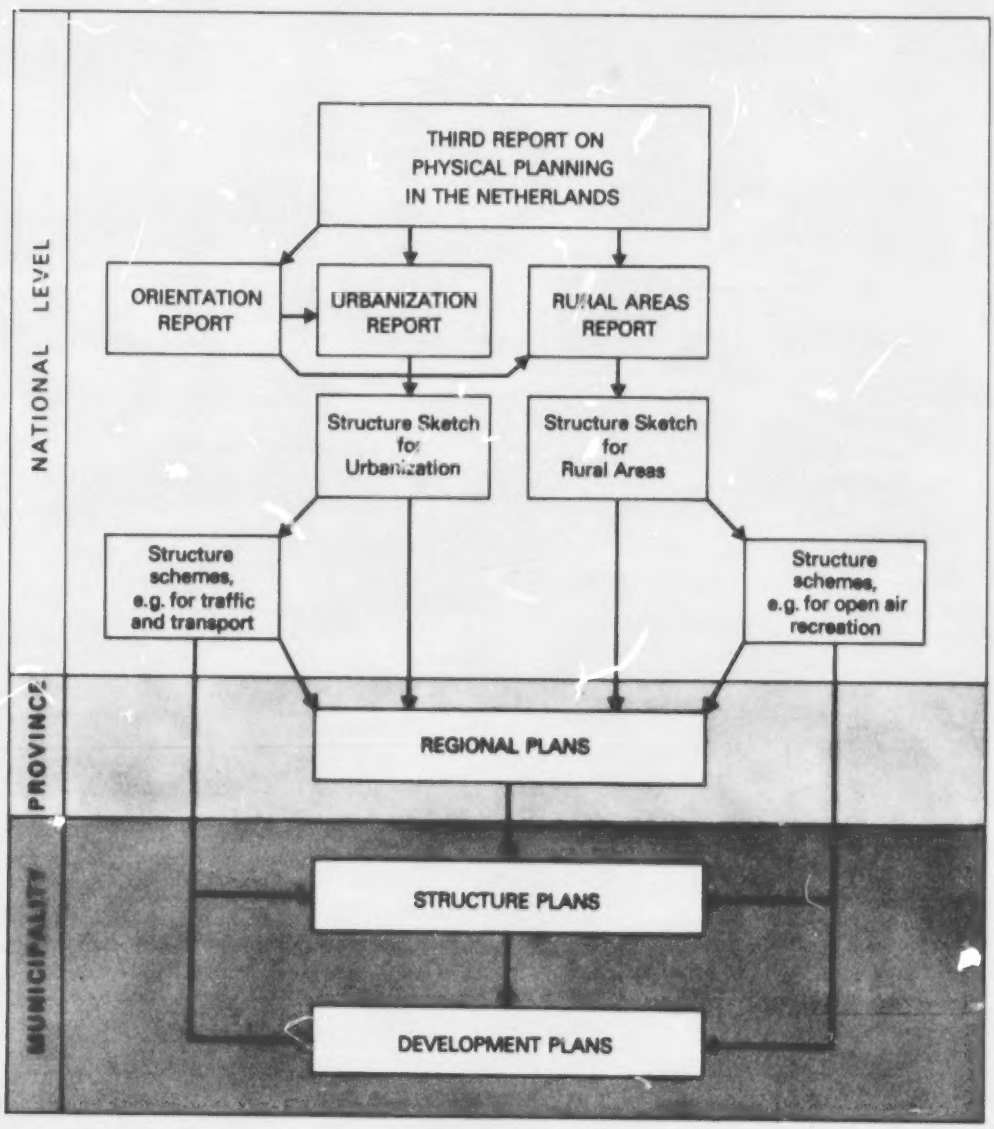


fig. 6 — *Instruments of physical planning.*

At the municipal level

The most important instrument, which has the most radical influence on the use of land, is the *municipal development plan.* It is the only plan in the Physical Planning Act which is legally binding on the citizen. Those who do not conform to the provisions of the development plan risk legal penalties and action by the police to undo what has been done in breach of the plan (e.g. one may be compelled to demolish buildings). Another unique aspect of the development plan is the fact that the municipal is *obliged* to prepare such a plan (for the built-up area or parts of it – e.g. a development plan may be prepared for an urban renewal area, but there is no obligation to do so).

A development plan consists of:

- one or more maps with a key giving the zoning of the ground, e.g. for residential purposes, commerce and industry, agriculture or recreation, transport uses etc.;
- provisions concerning the use of land and buildings in relation to the zonings;
- an explanatory note concerning the basis and objectives of the plan.

The municipality has far-reaching powers to ensure the implementation of development plans. In addition to the penalties and police action already referred to, expropriation is possible, while developments which are in conflict with the provisions of the plan can always be prevented by the withholding of building and other licences. On the other hand, the Act contains provisions for the protection of the citizen, such as public participation and the right of appeal (if necessary, to the Crown), and for compensation if someone suffers or is liable to suffer injury as a result of the provisions of a development plan.

The development plan procedure is as follows:

1. Mayor and Aldermen institute preparatory research and carry out consultation with neighbouring municipalities and the appropriate central and provincial government departments, and drainage boards, where appropriate.
2. A draft development plan is laid open for public inspection for one month; an announcement to this effect is placed in the local press. Anyone may make written objections to the municipal council.
3. The municipal council adopts the plan.
4. The adopted development plan is again laid open for public inspection for one month. Objections may now be made to Deputed States (province).
5. The plan is then submitted to Deputed States for approval.
6. The plan as approved by Deputed States is once more laid open for public inspection for one month. At this stage it is still possible to appeal to the Crown (Council of State).
7. If no appeal is made to the Crown, or if the Crown declares the objections to be invalid, the development plan comes into force. It is again laid open for inspection and published.

In order to prevent a complete loss of flexibility in physical planning through the laying down of future structures in development plans, the following additional provisions have been included in the act:

- where an area of land has not been developed ten years after the adoption of a development plan, the plan must be readopted at that time, with an amendment, if necessary;
- if it is desirable for particular areas of land to be developed before the development plan has passed through the complete, often lengthy procedure, the municipality may grant permission (with the approval of the province). In many instances a much more detailed use has been made of this now notorious Section 19 of the Physical Planning Act than the legislator originally intended.

In addition to the development plans for parts of its territory, the municipality may also prepare a *structure plan* for the whole territory or larger parts of it. These structure plans serve as a framework for the development plans in the area concerned.

It is not obligatory to prepare structure plans and in practice, few municipalities have done so. A clear exception are those municipalities where the total structure is still in development, such as new towns (Lelystad, Almere) and some growth centres (Zoetermeer, Nieuwegein). In the other municipalities the planning activity is generally directed much more towards the development plans.

A structure plan consists of:

- a description of the desired longer-term developments;
- one or more maps to depict these developments;
- an explanatory note.

A structure plan must be revised at least once every ten years.

The procedure is considerably shorter than for the development plan:

- preparation and draft by Mayor and Aldermen (laying open to inspection, publication);
- opportunity to submit objections to the Municipal Council;
- Municipal Council adopts the plan and informs Deputed States and the Physical Planning Inspector of its action (see p. 12).

The provincial level

The most important instrument of provincial spatial policy is the *regional plan* (fig. 6). It sets out for the whole province, or for parts of it, the main lines of the desired future development. It forms the basis of the policy for the approval of municipal development plans. It must be revised at least once every ten years.

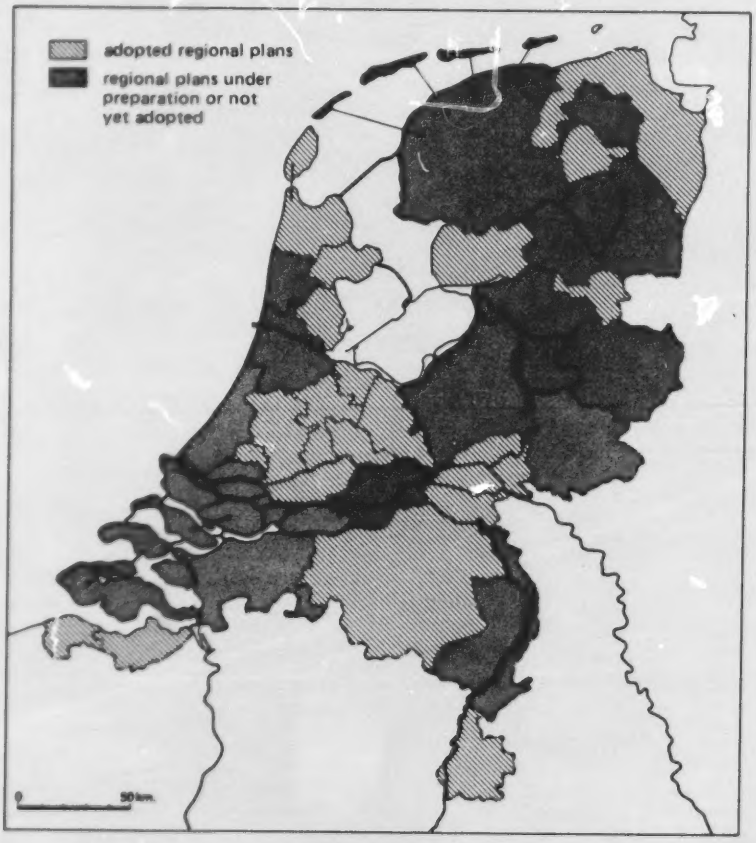


fig. 7 – State of progress of regional plans at 1 January 1977.

The preparation of a regional plan is not obligatory, although the Crown may make it obligatory in special instances. Regional plans have been made, or are in preparation, for almost the whole country (fig. 7). In only one instance (Friesland) does the plan relate to the whole province; all other regional plans cover parts of provinces. A clear process of enlargement of scale is at work in respect of regional plans: in various instances, where long-standing regional plans are being revised, a number of smaller regional plan areas are being amalgamated into one larger area.
The two Flevoland polders do not belong to one of the eleven provinces and are therefore not covered by regional plans in the sense of the Physical Planning Act. Planning is carried out here by the IJsselmeer Polders Development Authority for the Zuyder Zee region as a whole, and by the Southern IJsselmeer Polders Board and the municipalities of Lelystad and Dronten at the "local" level.

The procedure for regional plans is as follows:

- Deputed States carry out research into the existing conditions and the desired spatial developments in the plan area;
- Deputed States prepare the regional plan;
- the draft plan is laid open for public inspection for two months; during this period objections may be made to Deputed States;
- Provincial States confirm the plan;
- the adopted plan is laid open for public inspection and the Minister of Housing and Physical Planning informed of its confirmation.

A second important instrument available to the province is the power of Deputed States *to approve or withhold approval from the municipal development plans.* In the event of refusal the municipal council must prepare a new plan within a year. Moreover, Deputed States may instruct a municipality to prepare a structure plan or development plan(s) within a particular time, or issue a *direction* concerning the content of a development plan. Occasional use is made of this latter possibility where the provisions of a development plan do not conform to the regional plan for the area in question. If a municipality does not carry out the direction or instruction, Deputed States may prepare or amend the development plan at the municipality's expense.

The national level

The idea, which dated from before the war, that it would be possible to prepare a single "National Plan" for the whole of the Netherlands was abandoned in the 1950's, because it came to be realised that such a plan (even if it were possible to make one) would be far too static and probably already be out-of-date at the moment of its adoption.

As has already been described, planning policy has undergone an increasing degree of diversification: fact planning, sector planning (see p. 10-11), and even within the single facet of spatial policy it has been found no longer possible to compromise all the main lines within one policy statement. While the First Report (1960) and the Second Report on Physical Planning in the Netherlands (1966) still appeared as single volumes, the Third Report was published between 1973 and 1978 in various parts:

Part 1, Orientation Report (background and points of departure);
Part 2, Urbanisation Report (dealing with dispersal, urbanisation and mobility);
Part 3, Rural Areas Report (dealing with development, planning and management).

Simultaneously with Parts 2 and 3, have appeared Structure Sketches for Urbanisation and the Rural Areas. A structure sketch (consisting of a map with explanatory note) gives an idea of the total spatial development of a particular area over a longer period. It relates to general spatial developments which the central government wishes to influence in a particular direction.
Besides the instruments just described, mention should be made of the structure schemes. A structure scheme (which consists of a report illustrated with maps) relates to the main lines and principles of the long-term policy (25 to 30 years) to be followed in a particular sector of government policy having important spatial consequences (e.g. electricity supply, traffic and transport). It pays particular attention to the spatial aspects of the policy sector concerned. Structure schemes are regularly revised, e.g. after five years.

Other instruments of spatial policy available to central government, comparable with those available to the provinces, are the possibility of giving the province *instructions and directions* to prepare or amend regional plans. These powers are available to the Minister of Housing and Physical Planning. In extreme cases the Crown may even *reverse* the decisions of lower tier authorities if these are in conflict with the law or (sometimes) with the public interest.

The "Key Planning Decision" (PKB)

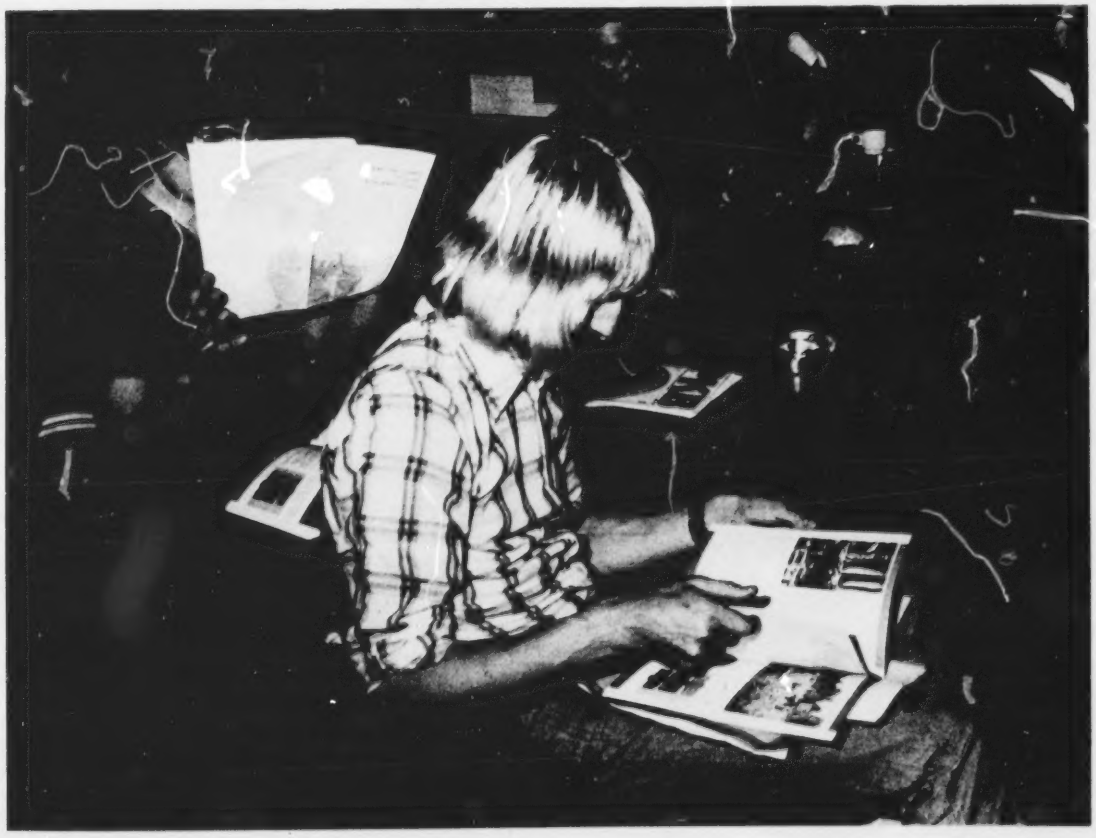
During the past few years a new public participation procedure has been in use at the national level for important planning decisions: this is the procedure for key planning decisions, which is employed for the following kinds of decision:

a. decisions and policy declaration in respect of broad outlines and principles of general relevance to the national spatial policy;

b. decisions on specific policy schemes of relevance to the national spatial policy and which depart from the accepted broad outlines and principles;

c. decisions on specific policy schemes of relevance to the national spatial policy and which anticipate the adoption of broad outlines and principles.

This procedure offers everyone the opportunity of expressing his or her views on a policy proposal by the government, such a proposal generally being published to the accompaniment of a great deal of publicity and information. In practice, much use is made of the opportunity to express an opinion. At the same time, the government carries out consultations with the lower tier authorities: generally the provincial governments concerned and, if possible, also the municipal authorities. The government also requests advice from the various advisory bodies.



Photograph 2 — *Meeting forming part of a PKB public participation procedure.*

The government re-examines its policy proposal in the light of the views put forward during the public participation stage and of the advice received during the official consultations and then publishes its decision; indicating what changes have and have not been accepted and giving its reasons. The decision is announced to the Second Chamber, which has six months in which to discuss the decision with the government. At the end of the six months the government may implement its decision. The Second Chamber has shown great interests in the key planning decisions announced so far and has discussed them in detail with the government. During the discussions the Chamber has sometimes made intensive efforts to influence the content of the government's decision by means of "amendment motions".

Up to the present the Cabinet has applied the P.K.B. procedure in respect of the following topics: *)

- all parts of the Third Report on Physical Planning:
  Part 1: Orientation Report;
  Part 2: Urbanisation Report;
  Part 3: Rural Areas Report;
- the Structure Sketches for urbanisation and the rural areas;
- all Structure Schemes:
  - domestic and industrial water supply;
  - electricity supply and Supplementary Structure Scheme for Electricity Supply;
  - traffic and transport;
  - navigable waterways;
  - public housing;
  - land use;
  - nature and landscape conservation,
  - open air recreation;
  - civil airfields;
  - defence lands;
  - pipelines;
  - water economy;
  - seaports;
- decisions and views concerning the main lines of development of the Wadden Sea;
- decision about construction and choice of location of a second national airport;
- decision about the Markerwaard.

Vignette as used by the Ministry of Housing and Physical Planning in the explanatory material on the PKB.

I.3.3. Objections

The application of the "rules" as laid down in the 1965 Act proved in practice to give rise to a number of objections. The Act places strong emphasis on the municipal development plan, which is intended to give the citizen the maximum possible say about the physical developments in his immediate neighbourhood. Possibilities for direct communication between the central government and the citizens or municipalities proved to be almost non-existent, however. The citizen can exert an influence on national plans only through Parliament while, conversely, the Minister of Housing and Physical Planning can make his influence felt on the municipal development plans only through the intermediate stage of the provincial regional plan.

The P.K.B. procedure was designed, by way of an experiment, to meet the first objection. The procedure is expected to be given a legal basis in a new Physical Planning Act which will shortly become law. The act will probably also contain a provision to enable the Minister to give direct instructions and directions to municipalities regarding their development plans. It is also intended to simplify the development plan appeal procedures. Because of the present, very extensive opportunities for appeal the implementation of a development plan may be delayed for as much as four or five years.

*) See also Section III.3. (p. 46-48).

I.4. The spatial policy in practice

I.4.1. Introduction

It is impossible within the scope of the present publication to devote attention to the content of all the physical plans in force at the different administrative levels. As far as plans at the national level are concerned, we shall give in brief the main outlines of the different parts of the Third Report on Physical Planning in the Netherlands and the accompanying structure sketches. Section III.3. (p. 46-48) gives further information about the current stages of the structure schemes.
As far as the numerous regional, structure and development plans are concerned, one example will be given of each. The examples will all be taken from the same area of the country (South Utrecht and the growth centre of Nieuwegein), so that the relationship between the different kinds of plans will become clear.

I.4.2. The "Third Report"

The fact that, shortly after the publication of the detailed Second Report (1966), there was already a need for a new Report on Physical Planning in the Netherlands had various reasons:

- an important starting point – the expected demographic trends – proved to have changed radically over a short period. While the Second Report of 1966 was based on the expectation that the Netherlands would have a population of 20 million in the year 2000, the calculations ten years later came out at no more than about 15 million. The main cause of this was the unexpectedly rapid decline of the fertility of marriage;
- it proved impossible in practice to realise important objectives from the Second Report such as the strengthened population growth in the Northern provinces and the slowing down of suburbanisation. The report evidently gave insufficient indication of what instruments were needed to realise these ambitious objectives;

derde nota over de ruimtelijke ordening
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- after 1970 views about essential starting points of the spatial policy, such as economic growth and increased mobility, had changed radically. Publications such as those of the Club of Rome, events like the energy crisis of 1973 and the ensuing stagnation of the economy, as well as the increasing concern for the conservation of the natural environment, often gave rise to drastic changes of outlook.

In view of the far-reaching nature of all thse matters it was decided to prepare a new, Third Report on Physical Planning in the Netherlands. This was to appear in separate parts, each of which would pass through the Key Planning Decision procedure.

Orientation Report

Particularly as a reflection of the fundamental changes in view about the desired future developments in society, the first part – the *Orientation Report* – was devoted entirely to background, starting points and the government's policy proposals.

The first paragraph of the Orientation Report gives evidence of a considerably more sombre view of the spatial situation in the Netherlands than appears from the Second Report of 1966. There are nevertheless also points of light, certainly in comparison with many urban areas elsewhere in the world. The report also indicates the direction in which the solutions must be sought:

> "Space has become a scarce commodity in large parts of the Netherlands. The optimism that an attractive living climate can be preserved even in the long-term through good physical planning has faded. The problems of the cities have become apparent to all in recent years; many people are struck by the rapid disfigurement of important parts of the countryside. These facts in themselves weigh heavily, but the way in which they are felt further aggravates the situation. People have become more sensitive to the impoverishment of the environment and are more strongly affected by it than before.
> However much these developments may be a cause of concern, it should not be forgotten that nearly everywhere in the country ways are still open to improvement and adjustments are possible. Other than in many metropolitan areas elsewhere in the world, it is still possible here, for example, to achieve a better relationship between areas of residence and work, thereby moderating the need for mobility and enabling the traffic and transport system to be organised more efficiently. In principle, the situation can still generally be reasonably controlled. Its actual control depends mainly upon the will to use the existing instruments for the purpose and to devise new instruments where necessary. The possibilities for control become greater if people are willing to accept a certain amount of restraint in various respects, such as in the use of land."

The willingness to accept certain limititations is one of the most essential starting points. Some of the main objectives listed in the Third Report are clear illustrations of this, for example:

- adaptation of the wishes of society to the possibilities of space and environment;
- further consideration to be given to the objective of economic growth; aiming at selective growth;
- limitation of the burden on the environment; safeguarding of environmental hygiene;
- prevention of over-investment in development;
- aiming at more economic use of land;
- aiming at a stationary population;
- an infrastructure policy which provides for needs without encouraging their enlargement;
- aiming at a limitation of mobility.

In comparison with the Structure Scheme for the Highway Network of 1966 (fig. 8), the two last objectives illustrate very clearly the difference in vision between the Second and the Third Reports. In 1966 it was assumed because of the rapid growth in car ownership and the greatly increasing mobility that, during the next thirty years or so, no less than 3,200 km of new main roads would have to be constructed (for example, seven new north-south links through the region of the great rivers between Rotterdam and Arnhem). Little of this has survived in the Structure Scheme for Traffic and Transport of 1977 (fig. 8).

fig. 8 – *Plans for the national road network from 1966 and 1977.*

The different parts of the Orientation Report were published, within the framework of the PKB procedures, as follows:

late 1973	– Part Ia	– Government's Policy Proposals
late 1974	– Part Ib	– Advice of the RARO (see p. 12)
Spring 1975	– Part Ic	– Government's Decision
1979	– Part Ie	– Text of the Report adopted after Parliamentary debate.

Urbanisation Report

The *Urbanisation Report* appeared in 1976 as the second and, in the eyes of many, most important part of the Third Report. It was accompanied by the *Structure Sketch for Urbanisation* (fig. 9).

In these publications a number of partly overlapping city regions were distinguished, the form and extent of which are based on a maximum travel time by public transport from home to city centre of 25 minutes (35 minutes for the four major cities).

The report proceeds from five principles:

- congestion and unbalanced urban structure must be avoided;
- open spaces and areas of ecological or landscape value must be protected; these ideas are worked out further in the Rural Areas Report (Part 3 of the Third Report);
- regional deficiencies and inequalities in the field of socio-economic development must be reduced;
- regional deficiencies and inequalities of service provision must be reduced;
- the growth of mobility must be reduced.

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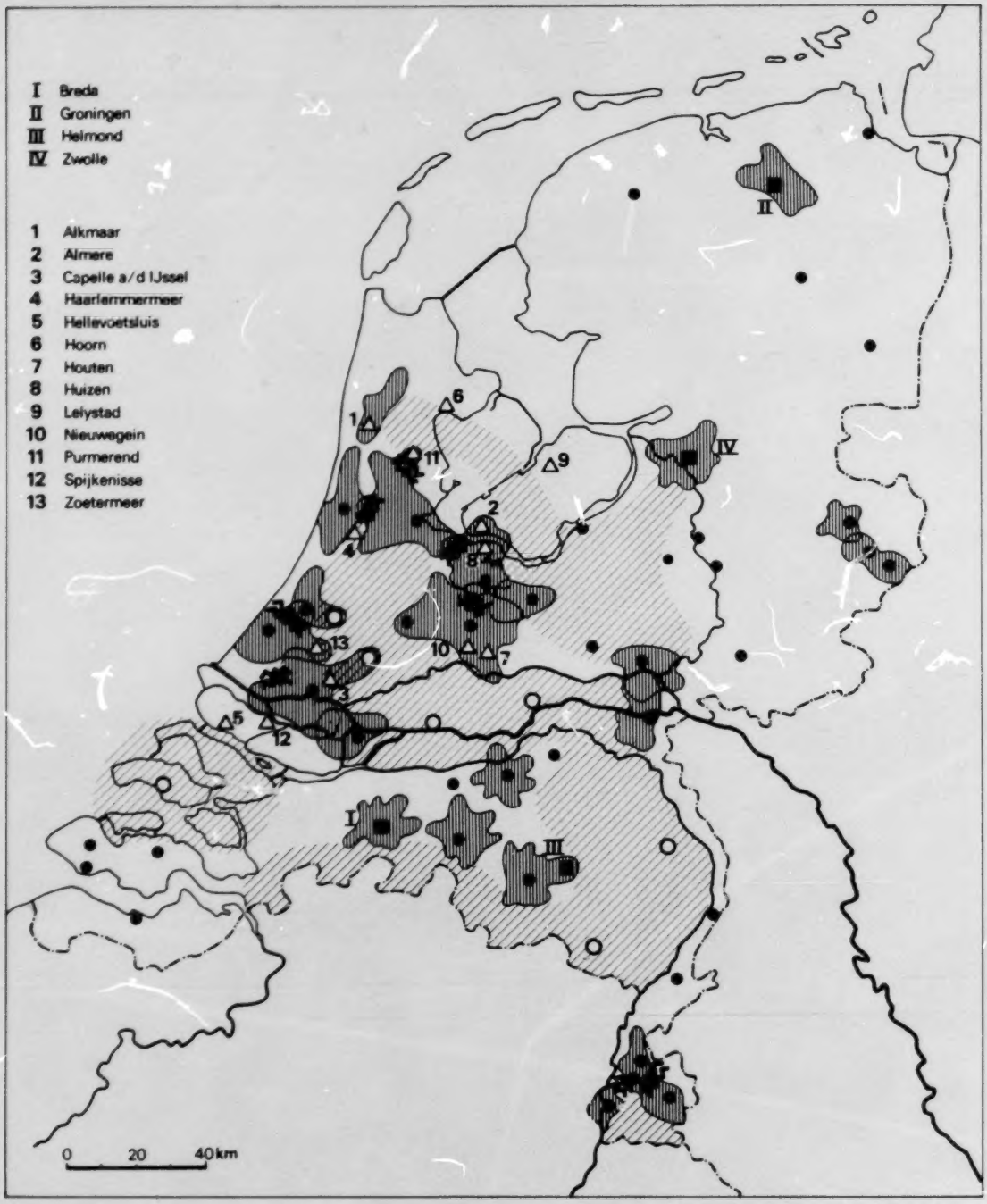

fig. 9 – *Summary of the Structure Sketch for Urbanisation.*

What is so striking in the definitive version of the Urbanisation Report is the totally changed approach to the dispersal policy. For many decades the principle had been held unreservedly that the population increase of the congested Randstad should be diverted to less densely populated parts of the country, preferably to those situated *outside* the cities forming part of the Randstad ring, and the farther outside the better.

It now appears, however:

- that the population of the cities in the west is declining rapidly, with all the attendant consequences for the level of services, impoverishment, in short, a deterioration of the quality of urban life;
- that the growth is moving not so much towards, for example, the Northern provinces, as towards the "Green Heart" or towards areas of attractive landscape in the neighbouring provinces of Utrecht, Gelderland and North Brabant;
- that many of the people who settle here continue working in the Randstad, thus giving rise to rapidly growing commuting over increasingly long distances;
- that, because of the decline of the cities, the international significance of the Randstad from the socio-economic and cultural point of view is being threatened.

Because of these considerations the stringent dispersal policy has been largely abandoned. The aim now is, through better planning of the Randstad, to reduce the congestion and improve the living climate in order to check the movement of people from the cities.

Photograph IV — *Urban renewal area in East Amsterdam. Left, 19th century residential streets; right, adjoining the railway, a new dwelling complex.*

It is intended to achieve this by the following measures:

- increasing the residential capacity of the cities, particularly through the operation of an active *urban renewal policy* (not replacing old dwellings by offices or multi-storey car parks, but by new dwellings) and by infilling vacant sites with homes;
- accommodation of the people who do leave the cities in a limited number of places, preferably in the west of the country and at a short distance from the existing cities. In this connection the Report distinguishes between *growth towns* and *growth centres.* Some of the latter may even be situated on the inner side of the ring of Randstad cities! Apart from Almere in Southern Flevoland, the sites chosen are existing towns and villages. Designation as growth centre means that, during a period of ten years, at least 6,000 dwellings must be built; for growth towns the requisite number is 10,000. The growth municipalities may obtain various forms of financial and other support from the provincial and central governments. At the present time (Spring, 1980) thirteen growth centres and four growth towns have been designated (Table 2 and fig. 9).

The definitive version of the Urbanisation Report (Part 2E, 1979) also leaves open the possibility of designating Amersfoort, Emmen, Leeuwarden and Roosendaal or Bergen op Zoom as growth towns, and of Duiven-Westervoort and Leidschendam as growth centres.

In addition, eight centres in the "Central Open Zone" (rural areas between or in the vicinity of city regions – fig. 9) have been designated to accommodate in the first instance the population growth of their own hinterlands: Alphen aan de Rijn, Gorinchem, Gouda, Tiel, Venraij, Weert, Woerden and Zierikzee.

Photograph V – *The growth centre of Zoetermeer; in the foreground the old village, behind, the new extensions built after 1966 (looking west).*

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In conclusion, it may be stated that the former dispersal policy has been replaced by an "anti-dispersal policy". In the Urbanisation Report for the first time the aim is to obtain for the West a greater share of the national population (target for the year 2000: 41.9%) than it would have without intervention (trend calculation: 40.6%). Although the difference is small, it nevertheless implies a radical reversal in comparison with the same figures from the Second Report of 1966: plan target 33.7% as against a trend calculation of 42.5%.

Notwithstanding the above, the long-standing principle of avoiding as far as possible the growing together of towns and conurbations is fully maintained.

Keeping open the "Green Heart" and the maintenance or creation of "buffer zones" between the towns and cities continue as important policy objectives. The principle has been abandoned only in respect of a few fringe areas of the Green Heart, particularly the area east of Delft (inc. Pijnacker/Nootdorp) and part of the Haarlemmermeer (S.W. of Amsterdam).

Table 2 – Growth centres and growth towns, population, 1979 and planned population, 1990

		Population 1 Jan 1979	Planned Population 1 Jan 1990 *)
	Growth centres		
1.	Alkmaar	69.000	94.500
2.	Almere	4.200	74.000
3.	Capelle a/d IJssel	40.700	70.000
4.	Haarlemmermeer**)	76.000	116.500
5.	Hellevoetsluis	13.500	25.000
6.	Hoorn	37.300	67.000
7.	Houten	8.500	24.500
8.	Huizen/Blaricum	39.400	47.500
9.	Lelystad	35.500	70.500
10.	Nieuwegein	34.800	56.000
11.	Purmerend	32.200	58.000
12.	Spijkenisse	34.800	64.500
13.	Zoetermeer	59.100	95.500
	Growth towns		
I.	Breda	117.500	146.600
II.	Groningen	160.600	211.700
III.	Helmond	58.600	91.100
IV.	Zwolle	81.300	112.900

*) calculated by multiplying the number of dwellings (existing + those to be built) by the expected average dwelling occupancy in 1990 (2.70).

**) the growth in the Haarlemmermeer will take place mainly in the settlements of Hoofddorp and Vijfhuizen.

A second striking difference between the Urbanisation Report as part of the Third Report on Physical Planning in the Netherlands and the First (1960) and Second (1966) Reports, referred to earlier, is the following:

The two earlier Reports contained only global indications which were regarded as forming a basis for elaboration in the regional plans and development plans of the provinces and municipalities, respectively. Many people found these Reports not sufficiently specific and attributed their disappointing outcome to this.
The Urbanisation Report takes a completely different line. In it the plans for the future picture of the urban Netherlands are worked out in much greater detail. No longer is the location of future developments indicated only in vague terms, but the sites are named precisely, together with the number of dwellings to be erected. The Report is also much more specific about the powers to be used to achieve the proposed aims.

The following parts of the Urbanisation Report have appeared within the framework of the PKB procedure:

early 1976 – Part IIa – The Government's Policy Proposals
early 1977 – Part IIb – Summary analysis of views expressed
early 1977 – Part IIc – Advice of the R.A.R.O.
early 1977 – Part IId – Government decision with explanatory note
early 1979 – Part IIe – Text of the PKB adopted after Parliamentary debate.

Rural Areas Report

At the beginning of 1977 appeared the first version of the third and last part of the Third Report, the *Rural Areas Report*, together with the *Structure Sketch for the Rural Areas.*
The main idea behind the Report and Structure Sketch is that, in a densely populated and highly urbanised country like the Netherlands, there are often competing claims for the use of non-urbanised space. It was formerly taken for granted that rural areas should be used for agriculture and that the economic interests of farming took first place. Equally, there were scarcely any objections to the reclamation of areas which were not yet in agricultural use.

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At the present time things are quite different. The rural area is of great importance for the recreation of the greatly expanded urban population. From the point of view of nature conservation there are increasing objections to further land reclamation (which is incidentally scarcely possible any longer in the Netherlands) and to measures for increasing production, such as the application of fertilisers and pesticides, the removal of hedges, the lowering of the groundwater table, the normalisation of streams etc. Moreover, the rural area may be of importance for such functions as a buffer zone between conurbations, a water catchment area, military training land etc. The Structure Scheme refers, therefore, to "a division of the rural area on the basis of a multilateral approach".

In outline two sets of tensions may be distinguished:

- between urbanisation and the interests of agriculture, nature and landscape,
- between the developments in agriculture and the interests of nature and landscape.

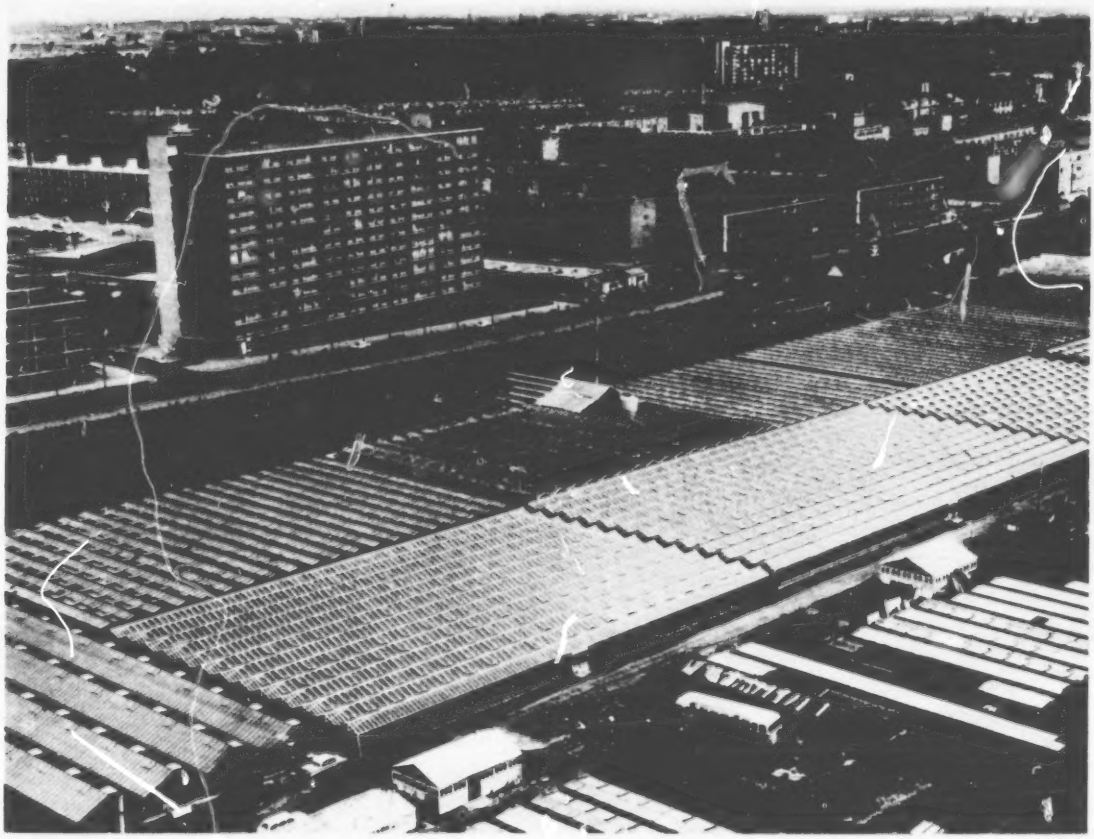
As a global policy guide-line in this competition for space, the Report divides the rural area into four zones (see fig. 10):

A. Areas with agriculture as the main function.

B. Areas with mixed agricultural and other functions in larger spatial units.

C. Areas with mixed agricultural, nature and other functions in smaller spatial units.

D. Areas with nature as main function.



Photograph VI – *Competition for space, between residential development (The Hague agglomeration) and horticulture under glass (Westland). The glasshouses in the foreground have had to make way for dwellings since the picture was taken.*

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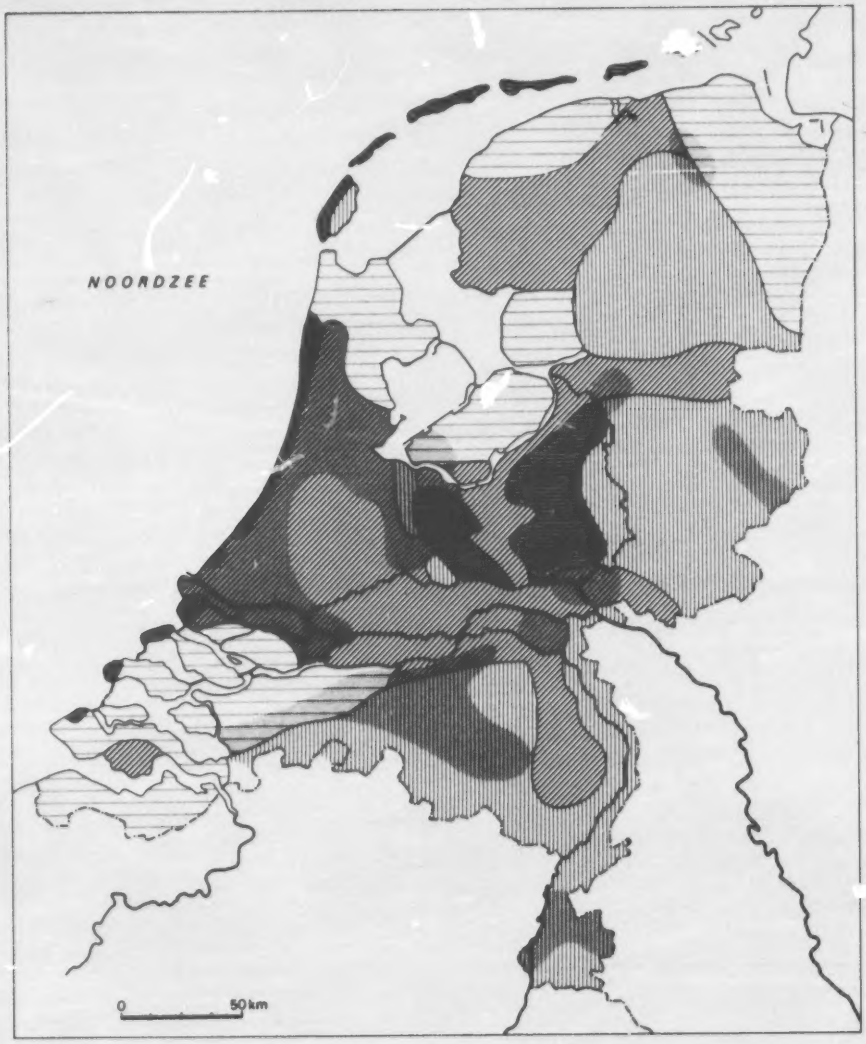
NOORDZEE
0
50 km
areas with agriculture as main function
areas with mixed agricultural and other functions, in larger spatial units
areas with mixed agricultural, nature and other functions, in smaller spatial units
areas with nature as main function
areas within the urban sphere of influence

fig. 10 – *Summary of the Structure Sketch for the Rural areas.*

The zoning is obviously global in character: within each zone there may be smaller areas which in fact belong to a different category. The intention of the zoning is to indicate which policy measures should predominate in the different areas.
In addition, it is noteworthy that part of the rural area is designated in the Urbanisation Report as "open zone" (fig. 9), which means that it has an articulating function in the future framework of the urban Netherlands (e.g. the "Green Heart" of the Randstad, the Veluwe, the Central Delta region). Up to the present, the following parts have appeared:

Spring 1977 – Part IIIa – Government's Policy Proposals
Autumn 1978 – Part IIIb – Main Points from the Participation Exercise
Winter 1978 – Part IIIc – RARO Advisory Report
Summer 1979 – Part IIId – Government Decision with Explanatory Memorandum.

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I.4.3. Regional Plan, Structure Plan and Development Plan: the example of Nieuwegein.

In this section the following are examined in turn as examples of provincial and municipal plans:

- the Regional Plan for South-East Utrecht;
- the Structure Plan for the growth centre of Nieuwegein, situated in South-East Utrecht;
- the Development Plan for the town centre of Nieuwegein.

I.4.3.1. – The Regional Plan for Central and South-East Utrecht.

The Regional Plan for Central and South-East Utrecht was adopted by the Provincial States of Utrecht on 16th May 1974. The area of the regional plan covers the territory of nine municipalities and has an extent of 295 square kilometres (fig. 11).

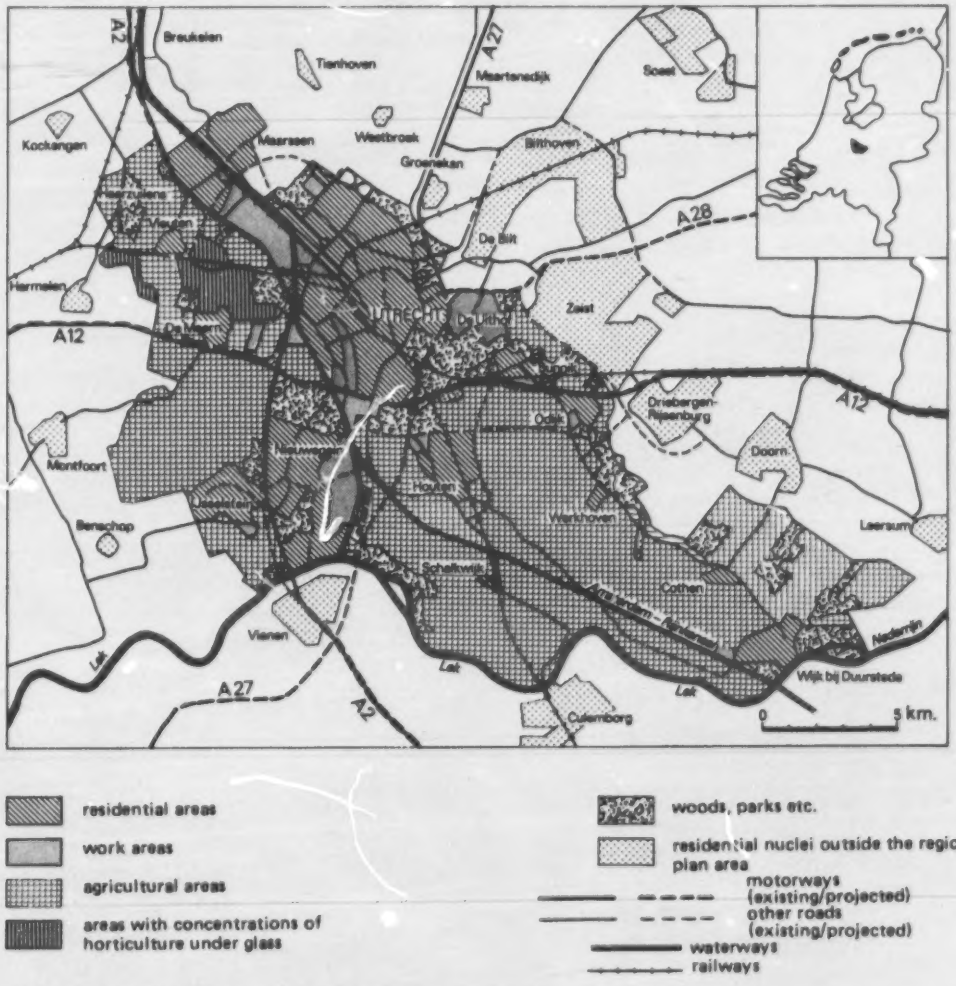


fig. 11 – *Regional Plan for Central and South East Utrecht.*

The area has a great variety of landscape, which results from the fact that three different landscape types border on each other here:

- in the west, the open pasture landscape of the Holland-Utrecht peat region;
- in the east, the wooded push moraine of the Utrecht hill ridge;
- in the south, the landscape of the region of the great rivers.

Situated in the centre of the country, the area covered by the regional plan is crossed by important traffic routes, such as the cross formed by the Amsterdam-Utrecht-'s-Hertogenbosch (N-S) and The Hague-Utrecht-Arnhem (W-E) motorways and railways, supplemented by the Amsterdam-Rhine Canal. A second north-south motorway is under construction across the region (Breda-Utrecht-Hilversum).

On 1st January 1979 nearly 340,000 people lived in the region. The total population figure is relatively stable, as there has been a decrease of only 0.85% since 1st January 1974. On closer examination, however, this stability proves to be illusory, since during the five years in question the population of the city of Utrecht decreased by 10.5% , while the population in the eight remaining municipalities increased by more than 31% (in Nieuwegein by more than 100%; see Table 3).

Table 3. Area and population of the municipalities in South East Utrecht.

Municipality	area im km^2	Population 1 Jan 1974	Population 1 Jan 1979
Utrecht	56,56	263,635	236,053
Remaining 8 municipalities	236,61	79,044	103,707
of which Nieuwegein	32,61	17,317	34,805
Regional plan area total	293,17	342,679	339,760

Proceeding from this situation and from the fact that the south-east of the province of Utrecht possesses areas of high ecological and landscape value, the following objectives are formulated in the regional plan:

- no further urbanisation than is unavoidable;
- population dispersal to the other regions of the country;
- no growth in the central part of the province which would injure essential ecological values;
- limitation of housing construction within this ecological framework.

Photograph VII – *The landscape in the area covered by the regional plan for Central and South East Utrecht is threatened not only by the expansion of settlements within the area, but also by the growth of the numerous settlements on the fringes of the region (cf. fig. 11). The photograph shows houses and blocks of flats forming part of the westward expansion of Zeist.*

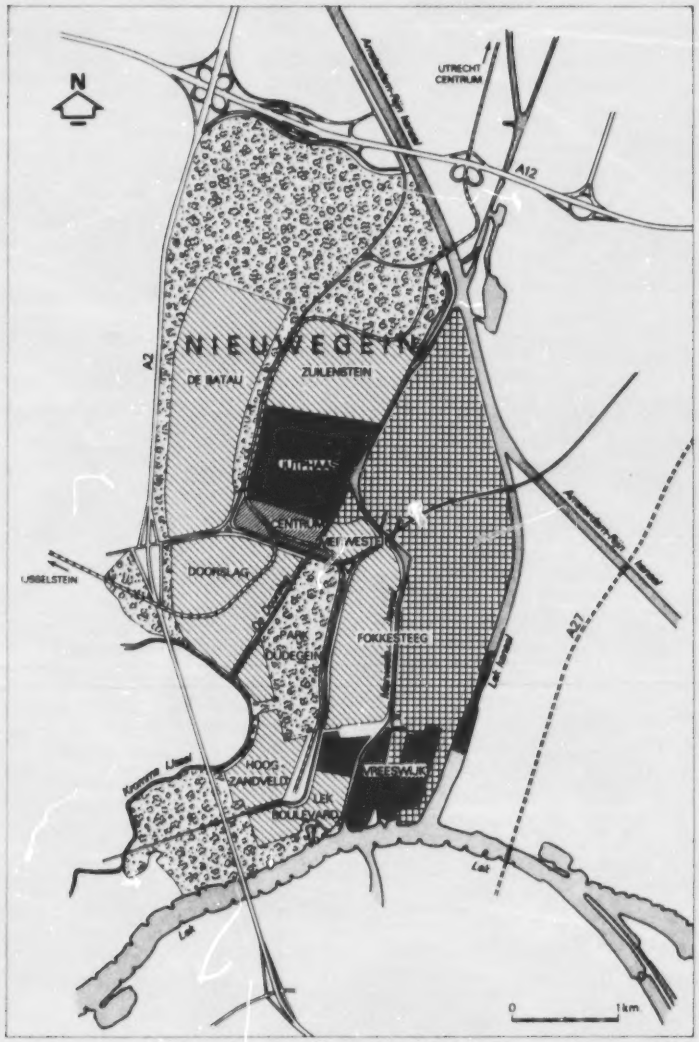
In order to be able to realise these objectives it is proposed to apply the principle of "concentrated deconcentration", which was launched in the Second Report and maintained undiluted in the Third Report on Physical Planning in the Netherlands. This amounts to an attempt to concentrate suburbanisation into a limited number of centres designated for the purpose in order to prevent a "silting up" or "petrification" of the rural area. In the plan area the growth centres of Houten and Nieuwegein are proposed in the first place to fulfil this function, while considerable growth is also provided for in Wijk-bij-Duurstede and IJsselstein (Table 4). The greatest increase, therefore, is planned for Nieuwegein.

Table 4. Population and Planned Population, 1985.

	1974	1985	Increase
Nieuwegein	17.300	51.000	33.700
Houten	7.300	25.000	17.700
Wijk-bij-Duurstede	7.500	17.800	10.300
IJsselstein	13.300	19.500	6.200

I.4.3.2. – Structure Plan for Nieuwegein.

The municipality of Nieuwegein originated in 1971 through the amalgamation of the municipalities of Jutphaas and Vreeswijk (fig. 12).



old residential areas
new residential estates
central area
work areas
open spaces
roads
road under construction
express tramway (under construction)

fig. 12 – *Structure Plan for Nieuwegein.*

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In the Urbanisation Report Nieuwegein is designated as a "growth centre with a diminishing task", i.e. that the number of dwellings to be built during the 1980's will decrease each year until a final stage is reached in 1990 of c. 20,700 dwellings and 56,000 inhabitants.

The Draft Structure Plan of 1969 sets out the following principles:

- a new town must be built over a period of approximately 15 years (1970 - 1985). It is proposed to complete the housing over three five-year phases.
- in planning the new town account should obviously be taken of existing conditions such as:
  - the situation between two motorways, the Amsterdam-Rhine and Lek Canals, and the Lek (see fig. 12);
  - the existing centres of Jutphaas and Vreeswijk and certain estates;
  - certain characteristic landscape elements, such as the area around the Kromme IJssel stream in the south west;
  - a number of industrial sites along the Lek and Merwede Canals.
- on the basis of these data a town has been planned with a centre situated south of the old village of Jutphaas. The old centres are retained and eight new residential neighbourhoods are built around and between them.
- the existing valuable landscapes are incorporated into the town as parks. The area between the Merwede and Lek Canals is designated as a "work zone" (light industry, offices, scientific institutes).
- during the early stages housing development will predominate. A high proportion of the new inhabitants will come from the city of Utrecht. In order to avoid large-scale commuting traffic on the already overloaded road network, a rail link will be constructed with the centre of Utrecht.

Photograph VIII – *Nieuwegein, looking north. In the foreground the Lek, with the old nucleus of Vreeswijk on the north bank. In the right background, the city of Utrecht.*

- in general, the predominant form of housing will be low-rise with single family dwellings. High-rise development will be restricted to in and around the centre and to the vicinity of the express tram stops.
- during the later stages attention will also be paid to attracting basic economic activities to ensure an eventual balance between residence and employment.

The procedure in respect of this structure plan came to a halt in 1969 with the publication of the draft plan – which is a clear illustration of the uncommitted nature of such plans (cf. p. 16) – although the main outlines of the plan have been adopted as a framework to be filled in by the separate development plans for each of the residential neighbourhoods (Table 5).

Over the years, as a result of altered circumstances, the plans have had to be modified in respect of a number of points. It will not be possible, for example, to achieve a balance between work and residence. Instead of the necessary 20,000 jobs, it is now hoped to be able to create 17,000 in Nieuwegein. There have also been delays in respect of certain aspects. The residential neighbourhoods will not now be completed in 1985, but in 1992. The express tram, programmed in the structure plan for 1975, will not now run until mid-1982.

Table 5 – New residential neighbourhoods of Nieuwegein with no. of dwellings and year of completion.

Neighbourhood	no. of dwellings	year of completion
Batau	5600	South: 1981; North: 1992
Zuilenstein	1995	1988
Doorslag	2450	1985
Fokkesteeg	2495	1984
Hoog-Zandveld	2600	already completed
Lekboulevard	600	1986
Merwestein	200	1983
Centre	1200	1988

I.4.3.3. Development Plan for the Town Centre of Nieuwegein.

The idea of building a new centre for the town of Nieuwegein, in addition to the village centres of Jutphaas and Vreeswijk and the local centres in the new neighbourhoods, had already been put forward in the Draft Structure Plan of 1969. The situation and function of such a centre were also already indicated in broad outline in that plan.

fig. 13 – *Sketch for the Development Plan for the centre of Nieuwegein.*

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Building upon these principles, a plan was produced, which was published in April 1976 as a Draft Development Plan. In May of that year the plan was sent to 32 interested bodies and a meeting was held in the town hall to inform the public about the plan. Reactions to the plan were received from half of the bodies circulated. These reactions, together with certain new developments led to the publication of a revised Development Plan in April 1979, which was laid open to inspection in July 1979.
In October 1979 the plan was adopted by the municipal council. It is not possible to say at present when approval by Deputed States (province) may be expected.

The most important principle determining the design for the new centre is that it should be experienced by the inhabitants and visitors to Nieuwegein as a real focus of the life of the town. It is proposed to achieve this by bringing together and mingling in a relatively small space such different functions as residence, work (offices), leisure and traffic. A choice has not been made here for a completely pedestrianised area, from which motor traffic is barred as far as possible. On the contrary, the centre will be made as accessible as possible to all forms of traffic. One of the maps in the development plan shows no less than 26 parking areas of various sizes, some of which are covered.
Moreover, the express tram line will pass through the centre, while all the bus routes to and from Nieuwegein will call at the bus station to be built in the centre.

The central area measures approximately 300 by 800 metres. The most striking part of the centre (see fig. 13, right of centre) is the "Plaat", a square area measuring about 150 by 150 metres, with underground parking space and, above it, shops (8,400 m^2), offices, cafes and restaurants (1,200 m^2) and 224 dwellings. The whole is surrounded by a canal.

In the central area the town hall and police station have already been built and taken into use in advance of the adoption of the Development Plan (Article 19, see p. 15), while a few office blocks are under construction on the otherwise still bare site. It is hoped to complete the centre in about 1985.

II – STATISTICS

Two criteria have determined the choice of statistics reproduced in this Bulletin. Firstly, each year statistics are included which are subject to rapid changes and/or which experience has shown are frequently used in foreign geography lessons about the Netherlands. This also provides the opportunity of making comparisons with previous years. Secondly, as far as the less frequently used or less rapidly changing statistics are concerned, the main aim is to achieve variety, so that during the course of the years a number of different themes are treated. Lastly, the annual leading article generally includes rather detailed statistics about the theme with which it is concerned.

The sources from which the statistics given in this chapter are taken are mainly two recent publications of the Central Bureau for Statistics (CBS, see also the bibliography at the end of this Bulletin):

- Statistisch Zakboek 1979 (Pocket Yearbook 1979)
- Bevolking der gemeenten van Nederland op 1 januari 1979
  (Population of the Netherlands municipalities on 1st January 1979).

These publications generally give figures for 1st January 1979 or for the year 1978. In addition, some data for January 1980 and the year 1979 were received directly from the CBS.

II.1. Area, land use and environment.

The CBS gives the following figures for the area of the Netherlands at 1st January 1979:

a –	land area (i.e. exc. waters wider than 6 m.)	33,938 km^2
b –	total area incorporated into municipalities	37,307 km^2
c –	total territory of the Netherlands (i.e. inc. estuaries, territorial waters etc.)	41,160 km^2

It is usual to take the figure given under b. as the area of the Netherlands; for the calculation of population density per km^2 (land), however, the figure given under a. is used.

The division between the different types of land use is given in Table 6.

Table 6 – Land use in km^2 at 1st January 1979

cultivated land	24 870
woodland	3 110
natural areas	1 600
other lands (towns, roads etc.)	4 334
waters wider than 6 metres	3 019

Table 7 gives a picture of the degree of pollution of the rivers Rhine and Meuse in the Netherlands over the past three years:

Table 7 – Pollution of Rhine and Meuse

		Rhine at Lobith			Meuse at Lith		
	unit	1977	1978	1979	1977	1978	1979
Oxygen content	mg/l	7,0	7,6	7,7	9,7	9,9	8,9
Phosphate content	mg/l	0,8	0,7	0,7	0,6	0,6	0,9
Nitrogen content	mg/l	2,4	2,1	2,1	2,1	1,8	1,7
Chloride content	mg/l	172	162	172	56	56	46

Source: Rijkswaterstaat/CBS.

There may be considerable variations from these averages; for example, the chloride content of the Rhine in 1978 fluctuated between a minimum of 70 and a maximum of 298 mg per litre.

II.2. Population.

The population of the Netherlands on 1st January 1980 was 14,091,014. The population density was 415 per square kilometre of land, 378 per square kilometre of the total incorporated area and 342 per square kilometre of the total territory of the Netherlands (cf. the data in II.1., above).
Table 8 gives the population trends for 1979.

In absolute figures the population increased by 107,200 persons in 1979. 58% of the growth was accounted for by natural increase (62,400) and 42% by net migration gain (44,800). The gain from foreign migration was largely the result of immigration from the Mediterranean countries (17,200) and Surinam (15,800).

Table 8 – Key demographic figures for 1979 (per mille)

Birthrate	12,5	
deathrate	8,0	
natural increase		4,5
immigration	7,5	
emigration	4,3	
net migration		3,2
total population growth		7,7

provincial boundaries

boundaries of provinces and regions

fig. 14 – *Regions, provinces and towns with more than 100,000 inhabitants.*

Table 9 gives, by province and region (cf. fig. 14), the area, population and population density at 1st January 1980, and the population increase since 1st January 1975 (see fig. 14).

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Table 9 – Area, population density and population increase by province and region.

	land area *) in km2 1 Jan 80	population x 1,000 1 Jan 80	population per km2 of land 1 Jan 80	percentage growth 1 Jan 75 to 1 Jan 80
Groningen	2338	553,7	237	+ 3,3
Friesland	3353	584,0	174	+ 5,5
Drente	2654	418,5	158	+ 4,4
North Netherlands	**8345**	**1556,2**	**186**	**+ 4,4**
Overijssel	3813	1018,2	267	+ 4,2
Gelderland	5010	1694,4	338	+ 4,5
S. Lake IJssel Polders	954	65,5	69	+ 122,0
East Netherlands	**9777**	**2778,1**	**284**	**+ 5,7**
Utrecht	1332	895,5	672	+ 4,4
North Holland	2670	2307,6	864	+ 1,0
South Holland	2901	3083,6	1063	+ 1,9
West Netherlands	**6902**	**6286,7**	**911**	**+ 1,9**
Zeeland	1785	348,3	195	+ 6,6
South West Netherlands	**1785**	**348,3**	**195**	**+ 6,6**
North Brabant	4958	2051,2	414	+ 5,7
Limburg	2171	1069,0	492	+ 2,4
South Netherlands	**7129**	**3120,2**	**438**	**+ 4,5**
NETHERLANDS **)	33938	14091,0	415	3,6

*) area exc. waters wider than 6 metres.
**) population of the Netherlands inc. persons without a fixed address entered in the Central Population Register.

In most instances the population of the cities decreased further. Table 10 gives a comparison of the figures for 1st January 1980 with those of five and ten years previously (see fig. 14).

Table 10 – Population, and increase or decrease of municipalities with more than 100,000 inhabitants.

Municipalities	Population 1 Jan 1970 x 1,000	Increase or Decrease 1970-75 in %	Population 1 Jan 1975 x 1,000	Increase or Decrease 1975-80 in %	Population 1 Jan 1980 x 1,000
Amsterdam	831,5	– 8,8	758,0	– 5,4	716,9
Rotterdam	686,6	– 9,6	620,9	– 6,7	579,2
The Hague	550,6	– 12,3	482,9	– 5,4	456,9
Utrecht	279,0	– 8,2	256,0	– 7,4	237,0
Eindhoven	188,6	+ 1,8	192,0	+ 1,3	194,5
Haarlem	172,2	– 3,7	165,9	– 4,6	158,3
Groningen	168,8	– 2,4	164,7	– 2,1	161,3
Tilburg	152,6	– 0,3	152,1	– 0,2	151,8
Nijmegen	148,8	– 0,7	147,8	– 0,1	147,6
Enschede	139,2	+ 1,4	141,1	+ 1,3	143,0
Apeldoorn	123,6	+ 7,4	132,8	+ 4,1	138,2
Zaanstad	116,1	+ 7,3	124,6	+ 3,4	128,8
Arnhem	132,5	– 4,8	126,2	+ 1,3	127,8
Breda	121,2	– 2,6	118,0	– 0,6	117,3
Maastricht	93,9	+ 18.8 *)	111,6	– 2,1	109,3
Dordrecht	88,7	+ 14,0 *)	101,1	+ 6,3	107,5
Leiden	101,2	– 3,3	97,9	+ 5,2	103,0

*) increase resulting from boundary changes.

The share of the total population living in these municipalities has declined constantly during the past ten years despite the fact that the number of municipalities in the group increased by two: in 1970, 29.3% of the population lived in 15 municipalities with more than 100,000 inhabitants, in 1980, 26.8% lived in 17 such municipalities.

As far as future population trends are concerned, the CBS has made two projections: a minimum and a maximum variant. The minimum variant is based on the assumption that the average number of children per family will decline to about 1.5, with the result that the population will rise to 14.3 million in 2000 and will then gradually decline. The maximum variant is based on the assumption that there will be a modest rise in the number of children per family to 1.9, giving a population of about 15.2 million in 2000, after which it rises to 15.4 million in 2020 and only then begins to decline.

II.3. Economy – economically active population and national income.

Table 11 gives the breakdown of employment in 1978 and 1979 (volume of labour in man-years).

Table 11 – Volume of labour, %	1978	1979
agriculture and fisheries	5,8	5,6
minerals extraction and manufacturing	30,4	29,9
trade, traffic and other services	59,3	59,9
unemployed	4,5	4,6

Table 12 gives the economically active population and its division over the three production sectors by province for the last three years in which censuses have been held.

Table 12 – Economically active population and its division over the three production sectors by province.

Province	Year	Primary sector %	Secondary sector %	Tertiary sector %	Total number
Groningen	1947	24,6	29,1	46,4	186.524
	1960	16,2	39,1	44,7	168.360
	1971	8,1	39,4	52,4	177.400
Friesland	1947	36,9	25,6	37,5	167.549
	1960	22,9	34,8	42,3	160.814
	1971	12,2	38,7	49,1	173.845
Drente	1947	47,3	26,0	26,8	109.902
	1960	27,3	38,3	34,3	110.997
	1971	13,4	42,0	44,5	130.900
Overijssel	1947	29,4	40,8	29,9	263.366
	1960	14,2	50,9	34,9	285.416
	1971	10,3	44,4	45,3	332.820
Gelderland	1947	29,8	35,1	35,0	399.166
	1960	14,2	42,7	43,1	463.784
	1971	9,1	44,7	46,2	487.465
Utrecht	1947	13,4	37,6	49,0	194.725
	1960	6,7	39,1	54,2	241.682
	1971	3,8	31,9	64,3	295.210
North Holland	1947	9,8	38,4	51,8	662.080
	1960	5,8	38,9	55,3	771.144
	1971	3,4	32,6	64,0	848.485
South Holland	1947	11,4	37,3	51,3	837.873
	1960	6,9	37,1	56,0	1.000.809
	1971	4,3	32,8	63,0	1.107.110
Zeeland	1947	37,4	26,6	36,0	102.149
	1960	23,1	32,3	44,5	100.943
	1971	10,9	37,8	51,3	108.825
North Brabant	1947	8,4	51,8	39,8	355.053
	1960	10,7	52,2	37,1	537.181
	1971	6,0	47,6	46,4	657.480
Limburg	1947	21,9	44,7	33,3	253.136
	1960	9,2	53,8	37,0	306.689
	1971	5,7	46,5	47,8	348.610
NETHERLANDS	1947	18,9	37,9	43,3	3.531.523
	1960	10,6	42,2	47,2	4.147.819
	1971	6,2	38,7	55,1	4.668.150

Calculated from CBS census data.

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Table 13 gives the division of the national income over the different economic sectors in 1978 and 1979.

Table 13 – National income, in %	1978	1979
agriculture and fisheries	4,5	4,0
minerals extraction and manufacturing	37,2	37,1
trade, traffic and other services	58,5	59,2
foreign countries	- 0,2	- 0,3

II.4. Agriculture

Table 14 summarises the trends in the use of agricultural land over the period 1965 - 1978.

Table 14 – Division of cultivated land by form of agricultural use *)

Land use x 100 ha.	1965	1970	1975	1978
Arable crops	809,2	694,2	681,1	703,8
Horticultural crops	119,5	118,0	114,7	120,2
of which underglass	6,0	7,0	7,9	8,1
Grass	1.327,3	1.330,4	1.286,2	1.221,5
Total cultivated land	2.256,0	2.142,6	2.082,0	2.045,4

*) In this table total cultivated land refers only to the net cultivated area. Table 6 (land use) gives the area of agricultural use, i.e. inc. buildings, yards, ditches narrower than 6 metres etc.

II.5. Minerals extraction and manufacturing

The production of petroleum in 1978 amounted to 1520 million kg and of natural gas to 88,730 million cubic metres. Coal mining in the Netherlands ended finally in 1975. The Netherlands must therefore import all its coal requirements, while more than half of the natural gas production is exported. As far as petroleum is concerned, domestic production is completely overshadowed by imports. A large proportion of the total available volume is re-exported and used for ships' bunkers (Table 15).

Table 15 – Production, import, export and use of coal, petroleum, natural gas and nuclear power

unit: 10^{15} joule *)	Coal	Petroleum	Petroleum Products	Natural Gas	Nuclear Power
Production	–	65	–	2808	44
Import	163	2360	552	56	–
Export	35	–	1370	1500	–
Bunkers	–	–	460	–	–
Gross consumption	13	30	–	– 2	–
Bruto consumption	141	2455	– 1278	1363	44

*) 10^{15} joule is the equivalent of 23.4 million kg of petroleum or 31.6 million cubic metres of natural gas.

The index figures of Table 16 show how production has increased since 1970 in the food, drink and tobacco, chemical and metal manufacturing industries, among others, while it has greatly declined in the textile, clothing and leather goods industries.

Table 16 – Indices of volume of industrial production (1975 = 100)

Branch of Industry	1970	1979
Food, drink and tobacco	86	112
Chemicals	78	134
Metal manufacturing	86	109
Textiles	131	95
Clothing	134	79
Leather goods	143	80

II.6. Foreign Trade.

In 1979 the total value of imports into the Netherlands amounted to 134,828 million guilders, which is about 9,604 guilders per head of the population. Exports amounted to 127,630 million guilders or 9,091 guilders per inhabitant. Table 17 gives a summary of the kinds of commodities imported and exported, while table 18 lists the countries with which the Netherlands traded.

Table 17 – Imports and exports by commodity group, 1979, in %

Imports		Exports		
Raw materials and semi-manufactures	61	Unprocessed agricultural products	7	
consumer goods	17	minerals	7	
capital goods	13	total manufactures	85	
other goods	9	of which:		
		food, drink and tobacco		17
		textiles, clothing		4
		petroleum products		13
		chemical products		19
		metal goods		26
		other manufactures		6

Table 18 – Imports and exports by countries/regions, 1979, in %

	Imports		Exports	
Federal German Republic	24		30	
Belgium and Luxembourg	12		15	
France	7		11	
United Kingdom	8		8	
Italy	4		5	
Other EEC countries	1		3	
total EEC		56		72
U.S.A.		8		3
other countries		36		25

After the decline in 1973-74, the volume of shipping movements and quantity of goods loaded and discharged in the port of Rotterdam-Europort appear to be recovering.

Table 19 gives a summary of the 1970's.

Table 19 – Rotterdam/Europort – number of seagoing ships and quantities of goods loaded and discharged (in millions of tons)

year	No. of seagoing ships entering	Goods discharged	of which Petroleum *)	Goods loaded	of which Petroleum *)	Total	of which Petroleum *)
1970	31.867	165,2	102,9	60,6	41,1	225,8	144,1
1971	32.980	169,8	112,3	63,0	43,5	232,8	155,8
1972	33.164	198,9	139,2	69,6	48,8	268,5	187,9
1973	34.196	224,5	156,2	85,3	59,2	309,8	215,4
1974	33.296	207,4	129,7	74,6	45,9	282,0	175,6
1975	32.499	199,9	125,9	73,3	48,8	273,2	174,7
1976	31.993	231,1	135,0	74,7	48,8	287,8	183,7
1977	30.638	208,7	131,3	71,3	44,5	279,9	175,8
1978	31.042	205,7	124,4	63,0	32,2	268,7	156,6
1979	29.904	226,4	139,8	74,9	42,0	301,3	181,8

Source: Port Department of Municipality of Rotterdam.
*) crude petroleum and petroleum derivatives.

55% of the goods imported into all Dutch ports in 1978 passed in transit to other countries. Conversely, other countries were responsible for 60% of the goods exported overseas from Dutch ports. Measured in tons this amounts to 110 million tons in transit from the sea to the hinterland and 15 million tons in the opposite direction, while 25 million tons were imported and re-exported from and to overseas. This total of 150 million tons of goods in transit yields about 3,000 million guilders for the Netherlands, i.e. more than one per cent of the national income and about six per cent of the total contribution of industry and government to the balance of payments (source: "De doorvoer via de Nederlandse zeehavens en de maatschappelijke betekenis daarvan" (The transit trade through the Dutch seaports and its social importance) of the Seaports Consultative Committee, 1980).

CHAPTER III – BRIEF NOTES

III.1. Traffic.

Changes west of Rotterdam

During the past year certain major improvements were made for the benefit of road transport in the area west of Rotterdam (see fig. 15).

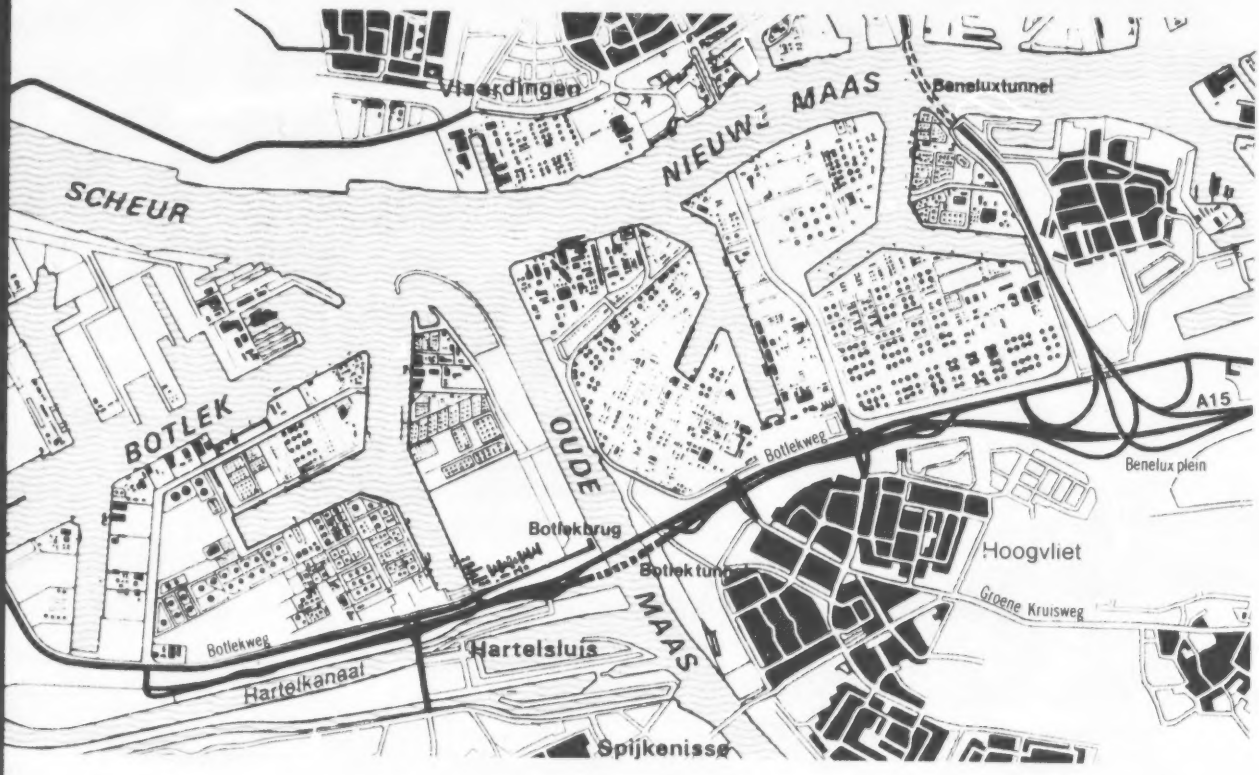

fig. 15 – *Part of the port of Rotterdam*

Firstly, on 31st December 1979, the toll through the Benelux Tunnel was abolished. This tunnel under the Nieuwe Maas (New Meuse) is an important link in the "diamond" of motorways around Rotterdam. On that day the State took over the tunnel from the "Benelux Tunnel Company Limited", which was formed by the municipalities of Rotterdam, Schiedam and Vlaardingen and interested private firms. The tunnel was opened in 1967; in 1979 it was used daily by 50,000 vehicles.

Subsequently, on 1st April 1980, the Botlek Tunnel under the Oude Maas (Old Meuse) came into use (1 on photo IX). This replaces the bridge which has already been far too narrow for many years – (2) in the road link between Rotterdam and the port zones of Botlek/Europort/Maasvlakte. The old bridge is being retained for the use of rail traffic, slow traffic and the transport of dangerous materials.

A remarkable project in this part of the Rotterdam port zone is the realisation of an open connection between the Hartel Canal (3) and Old Meuse (4). The Hartel Canal is the link for inland shipping with Europort/Maasvlakte, while the Old Meuse provides access to the Waal and Rhine via Noord and Merwede. The locks complex between the Hartel Canal and Old Meuse (5), which is about ten years old, has had to cope with such a great increase in the number of ships in recent years that the delays sometimes amounted to as much as two hours. Now that the barrier dams in the northern part of the Delta region have been completed (Haringvliet and Volkerak dams) and their effect on the water economy in the northern Delta waters (currents, salt penetration etc.) is

Photograph IX — *The area around the Hartel locks in the port of Rotterdam, looking west.*

1 = the Botlek Tunnel, 2 = the Botlek Bridge, 3 = the Hartel Canal, 4 = the Old Meuse, 5 = the Hartel Locks, 6 = the promontory which is being cut through to form the open shipping channel.

known, it has proved possible to give the canal an open connection with the Old Meuse. To achieve this a tongue of land south of the lock (6) will be cut through. A start was made on this task in May 1980. One of the results of opening the canal to the movements of the tides is that, at a few places along the canal, the embankments must be raised and the bridges over the canal jacked up by a half to one metre. The costs of this project are being shared between the State and the municipality of Rotterdam. It is hoped to be able to use the open connection in 1982, while the ancillary works are due to be completed in 1984.

It is pointed out in many foreign school text-books that Rotterdam has an open connection for shipping both with the sea and the hinterland. After 1982 this will therefore be even more the case than at present.

Traffic point by point

- Inland shipping is beginning to play an increasingly important part in the container transport between Rotterdam and its hinterland. In 1979 the port of Rotterdam handled 1.2 million containers. Hitherto, 70% of transport to the hinterland has gone by road, 20% by rail and 10% by inland waterway. The greatly increased cost of motor fuel, however, is weakening the competitive position of the road vehicle.
- One of the results of the greatly increased cost of motor fuel has been a rapid growth in the use and sale of bicycles, while Netherlands Railways have had to purchase additional rolling stock to carry the considerably increased numbers of passengers. It was calculated in the spring of 1980 that during the rush hours in the west of the country there were 25 to 30% more people in the trains than one year previously.
- The local railway from The Hague to Zoetermeer, which had been in partial use since 1977 (see IDG Bulletin for 1977-78, pp. 37-38), has been in full use since September 1979.

- A start is expected to be made soon on the construction of the Flevo railway line, linking Amsterdam with Almere and Lelystad. A possible extension of the line to the North East Netherlands is still the subject of study.
- The construction of the Schiphol Line between the airport and Leiden is progressing steadily (the section between Schiphol and South Amsterdam came into use at the end of 1978). The extension to Amsterdam Central Station, probably through the west of the city, is still under consideration.
- Also under construction are the east-west semi-metro line (express tram) in the Rotterdam agglomeration and the express tram line between Utrecht and the growth centre of Nieuwegein.
- the construction of a permanent crossing over and under the Western Scheldt, announced in the last Bulletin, has still not been given the go-ahead.

III.2. Water engineering works.

Lake IJssel polders.

Lelystad became an independent municipality on 1st January 1980, thirteen years after the arrival of the first residents. The municipality covers the western half of the polder of East Flevoland and part of South Flevoland, 27,000 hectares in total. The population on 1st January 1980 was 38,971 and is growing by about 5,000 persons per annum.

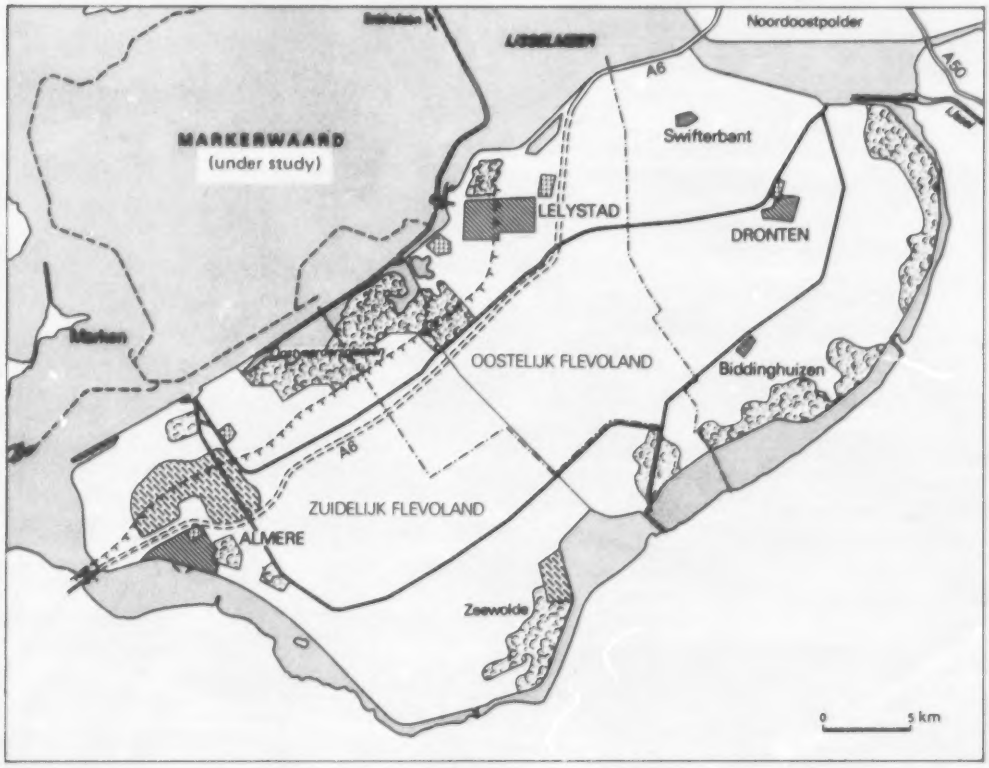

fig. 16 – *Flevoland.*

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No decision has yet been made about the division of the area between the provinces; for the present it continues to resort directly under the Minister of Home Affairs.

Almere in South Flevoland is also growing rapidly. The population of Almere-*Haven* grew from 4,200 on 1st January 1979 to 6,708 on 31st December of that year. The majority of the new inhabitants came from Amsterdam. In June 1980 the first residents of Almere-*Stad* moved into their homes.

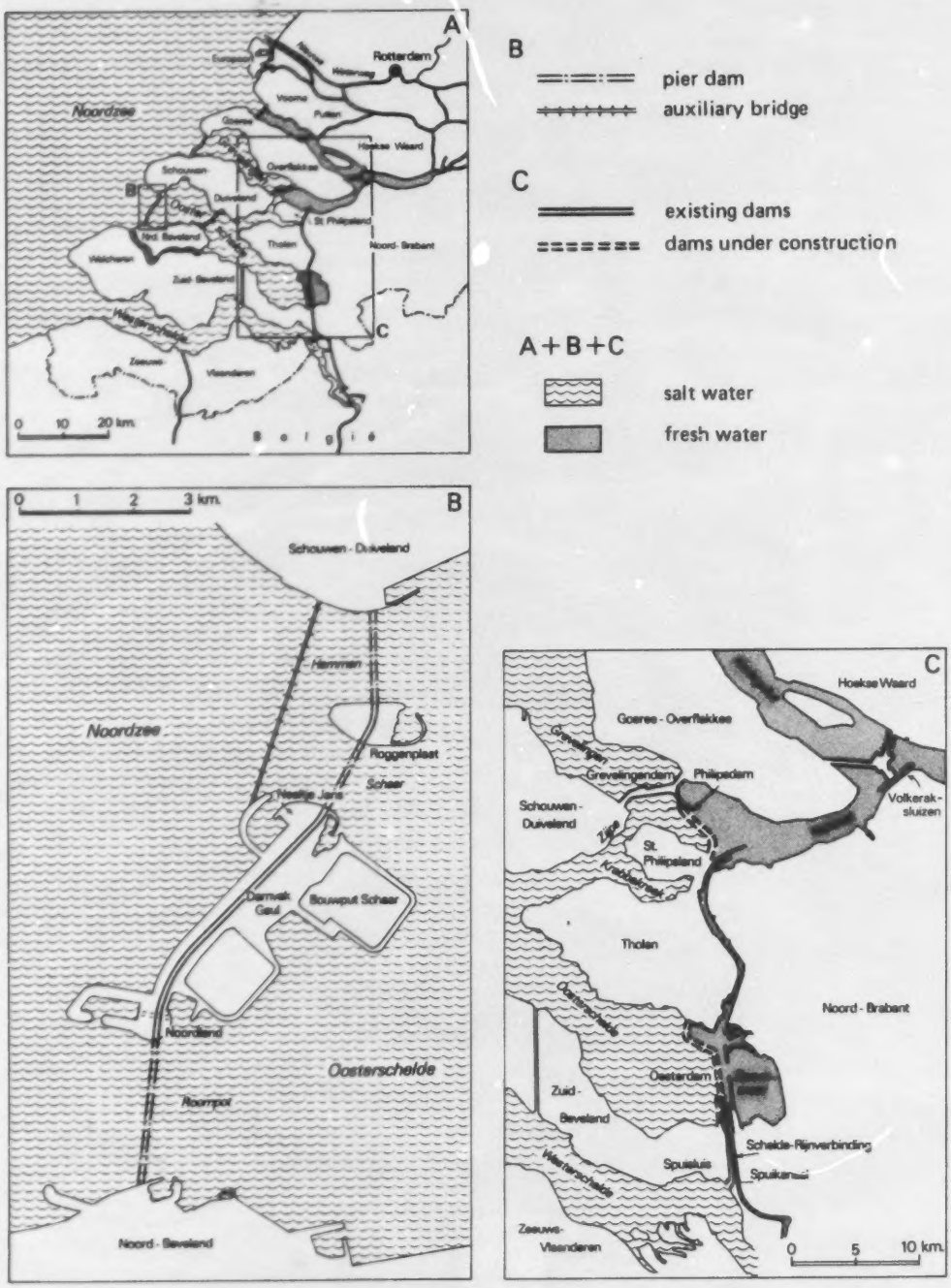


fig. 17 – *Eastern Scheldt works.*

A – general map of the Delta region.
B – construction of the pier dam at the mouth of the Eastern Scheldt.
C – construction of two secondary dams in the eastern part of the Delta region.

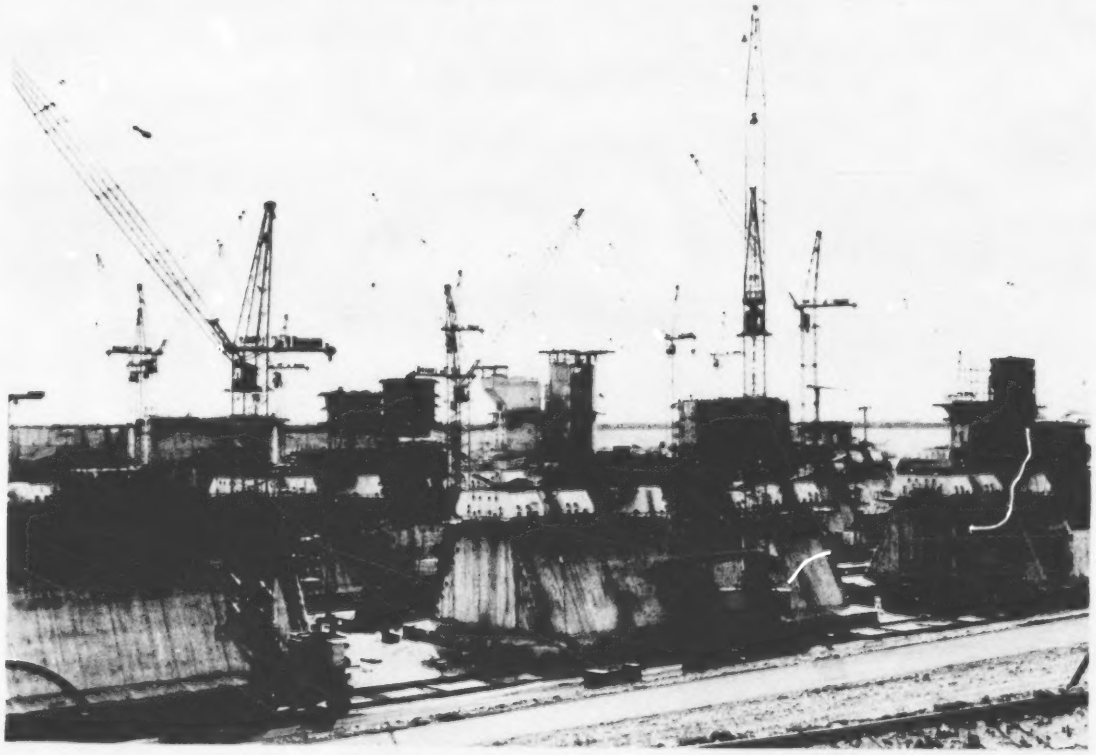
In 1979, 1,545 hectares of land in South Flevoland were leased out to farmers. In total, 3,145 hectares in this polder have now been leased out to private farmers, while some 20,000 hectares are being cultivated by the (temporary) large-scale agricultural enterprise of the IJsselmeer Polders Authority. The locality of Zeewolde, in the south east of the polder, has been planned as the service centre for this rural area. Consultations are still going on about the development of this settlement.

The Oostvaarders Lakes – a marshy area of 6,000 hectares in the north west of the polder – have developed into a nature area of great importance. Large numbers of sometimes rare birds, such as eagles and grey lag geese, which had already disappeared from the Netherlands at the beginning of the century, have made their homes there. Because of the area's great natural importance efforts are being made to have the line of the Flevo railway moved farther south. The railway would then run alongside the A6 motorway. The original plans to lay out the whole area along the Oostvaardersdiep as an industrial zone have been abandoned.

No final decision has yet been taken about whether or not to drain the Markerwaard. The first step in the PKB procedure (cf. p. 46) – the publication of the government's intention – will be taken shortly, since the Cabinet decided in principle in June 1980 to carry out the work.

Delta Works.

In the Delta region work is proceeding steadily on the construction of the three final dams in the Delta Plan, i.e. the pier dam in the Eastern Scheldt and the secondary Philips and Oester dams (see fig. 17).



Photograph X – *Construction of the piers for the Eastern Scheldt dam in the fifteen metre-deep work island in the middle of the mouth of the Eastern Scheldt.*

Work at the entrance to the Eastern Scheldt is taking place mainly on two fronts:

- in the three tidal channels, where the foundations for the storm surge barrier, on which construction will begin in 1982, are being completed. Special attention is being paid here to consolidating the loose sub-soil in order to strengthen the sea-bed and to the protection of more than four million square metres of sea-bed against erosion.
- in a construction site on a work island in the middle of the entrance to the Eastern Scheldt, where a start has been made on the construction of the 66 piers. As the latter are completed they will be transported by a specially designed lifting ship to the points where they are to be erected.

An auxiliary bridge three kilometres long has been built for the daily transport of workers and building materials to and from the work island (fig. 17). Near the Philips dam work is progressing on the shipping locks and the system for segregating the fresh and salt water on either side of the dam.
As far as the Oester dam is concerned, work has begun on the locks for shipping to and from Bergen op Zoom. Preparations are also being made for the digging of a discharge canal through the "neck" of South Beveland, needed for discharging the water from the Zoommeer (= the section of the Eastern Scheldt behind the Oester dam) into the Western Scheldt.

It is necessary to construct these two "compartmentalising dams" because:

- it has been agreed in the treaty with Belgium about the construction of the Scheldt-Rhine link that this shipping route should be tide-free;
- compartmentalising of the Eastern Scheldt reduces the area of the remaining – western – section, so that the tidal range there will still be great enough to guarantee the continuation of the oyster cultures at Yerseke, despite the partial closing off by the pier dam.

The total employment created by the whole Eastern Scheldt project has been calculated at 21,500 man-years, of which 65% is accounted for by the storm surge barrier and 35% by the two secondary dams.

III.3. Physical Planning

On pp. 18/19, in the leading article of this Bulletin, reference is made to the key planning decision (PKB) procedure. Summarised briefly, the procedure consists of the following stages:

1. Preparation and publication of the policy proposal;
2. Laying open for inspection in town halls, libraries etc.;
3. Information meetings;
4. Opportunity to submit written objections etc.;
5. Hearings;
6. Report of the Advisory Council for Physical Planning (RARO);
7. Government decision;
8. Parliamentary debate;
9. Publication, where appropriate, of a Modifications Report.

We give below a summary of the situation in respect of the decisions to which this procedure is applicable.

a – passed through complete procedure –
This is the case with the *Orientation Report* and the *Urbanisation Report* (parts 1 and 2 respectively of the Third Report on Physical Planning in the Netherlands), with the *Structure Scheme for Domestic and Industrial Water Supply*, and with the *Wadden Sea Report*. The Wadden Sea Report was debated in the Second Chamber in October 1979. In reaction to a number of motions the government subsequently published a Modifications Report.

b – almost at the final stage, awaiting parliamentary debate after the announcement of the government's decision are the *Rural Areas Report* (p. 26) and the *Structure Scheme for Traffic and Transport.*

The latter is based more firmly than before on the principle that motor traffic must be restricted where it causes too much nuisance, while public transport and slow traffic (cycle, moped) must be encouraged. Where the capacity for motor traffic nevertheless has to be increased, this should be done as far as possible by expansion of the existing links (fig. 8, p. 22 and photo XI).

c – awaiting the government's decision after having passed through the greater part of the procedure, are the *Structure Scheme for Electricity Supply* and *the Structure Schemes* for *Navigable Waterways* and *Public Housing*.
There are difficulties in reaching a decision about electricity supply because of the uncertain fuel situation (proportions of petroleum, natural gas, coal and conflicting attitudes towards nuclear energy).

d – the policy proposal for the *Structure Scheme for Civil Airfields* has been published and laid open for inspection. The government takes as its starting point that, until the year 2000, the increase in air traffic (which is now considerably slower than before the energy crisis of 1973) will have to be absorbed by improvement of the existing structure of the four national airports (Schiphol near Amsterdam, Zestienhoven near Rotterdam, Eelde in Groningen and South Limburg). Thus there will be no important extensions of these airports and no large new airport (of which there has been talk for many years with reference to the possible draining of the Markerwaard). Much attention is also paid to the problem of excessive noise. The ensuing discussion will be wide-ranging and intense in view of the many conflicting points of view. The Schiphol authorities, for example, wish to construct a fifth runway, Rotterdam and the Rijnmond Authority wish to close Zestienhoven in order to build houses on the site, and there are still those in favour of the construction of a large new airport, either in the Markerwaard or in western North Brabant.

Photograph XI – *Widening of the Hague-Utrecht motorway. The soft peat along the line of the projected road is first dug away and the "canal" so created is filled with sand. The road is subsequently laid on top of the sand.*

e – A policy proposal may shortly be expected in respect of the reclamation of the Markerwaard (see p. 45).

The plans for a radical reorganisation of local government, which have been referred to in various earlier IDG publications, appear to have been largely shelved for the moment. Many people regarded the size of the eleven provinces as too large and that of the 800 municipalities as too small for carrying out an effective policy. In order to encourage the formation of convenient sub-regions, while avoiding the creation of a fourth administrative tier in addition to central government province and municipality, the government evolved the idea of increasing the number of provinces. Originally, some 25 new provinces were proposed, later reduced to 17. There proved to be much resistance to this proposal among the provincial authorities, while the municipalities were not enthusiastic about surrendering powers to the new-style provinces. Moreover, the high cost of the reorganisation cast increasingly dark shadows ahead. The plan has now been largely indefinitely postponed. Only Rijnmond (around Rotterdam/Europort) and Twente (around Enschede/Hengelo) have the chance of becoming the Netherlands' twelfth and thirteenth provinces in the foreseeable future.

III.4. Excursions, addresses.

The previous Bulletin included for the first time a list of addresses of museums, exhibitions, information agencies etc., intended for people preparing excursions to the Netherlands or wishing to obtain information direct from particular agencies. We are repeating this list in the current edition of the Bulletin, with a number of amendments.

PLACE AND INSTITUTION	OPENING TIMES	ADDRESS AND TELEPHONE NUMB.
Aalsmeer, Flower auction	Mon-Sat, c. 8-11	Legmeerdijk 313, 02977 - 34567
Amsterdam Historical Museum (history of the city)	Mon Sat, 9.30-17 Sun 13-17	Kalverstraat 92, 1012 PH Amsterdam, 020 - 255822
Aviodome National Aviation Museum	10-17 (Nov-Mar, closed Mon)	Schiphol, Amsterdam, 020 - 173640
Netherlands Institute for Industry and Technique	Mon-Fri 10-16 Sat-Sun 13-17	Rozengracht 224, 1016 SZ Amsterdam, 020 - 248168
Netherlands Maritime Museum	Mon-Sat 10-17, Sun 13-17	Kattenburgerplein 1, 1018 KK Amsterdam, 020 - 254175
Town Planning Department, Urban Development Exhibition	Mon-Fri 12.30-16.30 Thurs 18-21 (by appt. only)	Keizersgracht 440, 020 - 222962
Arnhem National Folklore Museum – The Open Air Museum	May-Aug, 9-18, Sun 11-18 Apr/Sept/Oct 11-17	Hoeferlaan, 6816 SG Arnhem, 085 - 452065
Biddinghuizen (E. Flevoland) Flevohof – exhibition of Dutch agriculture, model farms etc.	8.30-18	Spijkweg 30, 03211 - 514
Enschede Twente – Gelderland Textile Museum	Tues-Sat, 10-12 and 14-17 Sun, 14-17	Espoortstraat 182, 7511 CM Enschede, 053 - 319093
Groningen Northern Institute for Industry and Technique	Mon-Fri, 9-12, 13.30-16.30	Agricolastraat 33, 9711 TP Groningen, 050 - 135692
Haarlemmermeer Cruquius Museum (in former steam pumping station; history of the Haarlemmermeer).	Apr-Sept 9-17, Sat-Sun 10-16 Oct-Nov 9-16, Sat-Sun 10-16, Dec-Mar, by appt. only.	Cruquiusdijk 32, 2141 EW Vijfhuizen, 023 - 285704
Heerlen Geological Museum	Mon-Fri 9-12 and 14-17	Akerstraat 88, 045 - 711910

PLACE AND INSTITUTION	OPENING TIMES	ADDRESS AND TELEPHONE NUMB.
Kerkrade Mining Museum, Rolduc Abbey	May- 15 Sept, Tues-Sat 9-17 15 Sept-Apr Tues-Fri 13-16.30	Heyendahllaan 82, 045 - 457138
Kinderdijk 16 windmills	Apr-Oct, Mon-Sat 9.30-17.30	near Alblasserdam, 01858 - 4118
Koog aan de Zaan Mill Museum	Tues-Sun 14-17	Museumlaan 18, 075 - 215029
Lauwersoog, Expozee (drainage and reclamation of the Lauwers Sea, Wadden Sea).	May-Sept: Tues-Fri 10-17, Sat-Sun 14-17, Oct-Apr: by appt. only	Expozee, Strandweg 1, 9976 VS Lauwersoog, 05193 - 9045
Limmen (NH) Bulb growing Museum	Mon-Fri 10-12 and 14-16	Düsseldorperweg 64, 02205 - 1950
Rotterdam Municipal Information Centre (films, slide sets etc.)	Mon-Fri 9-17 (by appt. only)	Coolsingel 42, 010 - 172182
Municipal Water Supply Undertaking: – Biesbos Resevoirs – Berenplaat Waterworks – Kralingen Waterworks	(by appt. only)	Galvanistraat 15 (office) 010 - 896955
Municipal Port Department (films, slide sets etc.)	(by appt. only)	Europoint III, Galvanistraat, 010 - 896911
De Dubbelde Palmboom – Historical Museum (urban history)	Mon-Sat 10-17 Sun 11-17	Voorhaven 12, 3024 RM Rotterdam, 010 - 761533
Prins Hendrik Maritime Museum	Mon-Sat 10-17, Sun 11-17	Burg. 's Jacobplein 8, 3015 CA Rotterdam, 010 - 361044
Schoonoord (Dr) De Zeven Marken Open Air Museum (Drente c. 1900)	Palm Sunday – Oct, 9-18	Tramstraat 73, 7848 BJ Schoonoord, 05918 - 579
Sliedrecht (ZH) Dredging Museum	Tues-Sat, 14-17 (for groups, other times possible by appt.)	Molendijk 204, Sliedrecht, 01840 - 4545
Utrecht Hoog Catharijne Information Centre (Urban renewal project; film etc.)	(by appt. only)	Hoog Catharijne, 030 - 310617
Netherlands Railways Museum	Tues-Sat 10-17, Sun 13-17	Johan van Oldenbarneveldtlaan 6, 030 - 318514
Veendam Peat Colonies Museum	Mon-Fri 14-17	Kerkstraat 18, 9641 AR Veendam, 05987 - 16393
Vlaardingen Sea Fisheries Museum	Mon-Sat 10-17, Sun 14-17	Westhavenkade 53, 010 - 348722
Wageningen International Soil Museum (soils from all over the world)	8.30-17.15 (by appt. only)	Duivendaal 9, PO Box 353, 6700 AJ Wageningen, 08370 - 19063
Agricultural Research Dept. Visitors' Centre	Mon-Fri 9-17	Mansholtlaan 10-12, 08370 - 19145
Zaandam The Zaanse Schans (village of traditional Zaan timber buildings, with various small musuems)	village freely accessible; museums 10-17	Zaanse Schans, Zaandam
DELTA REGION		
Delta Expo	Apr-15 Oct 10-17, 16 Oct-Mar, by appt. only	Haringvliet Locks, 3251 LD Stellendam, 01879 - 1600 (for appts. 16 Oct-Mar, National Tourist Office, Bezuidenhoutseweg 2, The Hague, 070-814191)
Eastern Scheldt Works (visit by bus to construction site of Eastern Scheldt dam, Information centre)	10-17	Burgsluis, Schouwen-Duiveland (bus departs from here every half hour for the work island)

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PLACE AND INSTITUTION	OPENING TIMES	ADDRESS AND TELEPHONE NUMB.
NATURE RESERVES, NATIONAL PARKS, RECREATIONAL AREAS		
Visitors' Centres:		
Amsterdam		
Amsterdam Wood, "Bosmuseum"	Mon-Sat 9-16, Sun 10-17	Koenenkade, Amsterdamse Bos, 020 - 431414
Municipality of Amsterdam Water Supply Undertaking: visitors' centre in dune water catchment area (water supply and nature)	9-17	Vogelenzangseweg, Vogelenzang, 023 - 246781
Castricum		
De Hoep Visitors' Centre (dunes)	May-Aug, 10-12, 14-17; Sept-Apr Sun 13-16	Zeeweg, Castricum, 02518 - 52243
The Hoge Veluwe National Park, "De Aanschouw"	Apr-Oct, 10-17	Houtkampweg, Otterlo, 08382 - 627
Overveen		
The Kennemer Dunes Visitors' Centre	15 Apr-15 Sept 9-16.30, 16 Sept-14 Apr Sat-Sun, 9-16.30	Militairenweg 4, 2051 EV Overveen, 023 - 271871
Spaarnwoude		
Crayenstein Visitors' Centre (recreational area)	Apr-Oct, Sat 13-17, Sun 10-18 (at other times by appt.)	Machineweg 1, Halfweg, 0[illegible]907 - 2444
Texel, Natural Recreation Centre (Texel and Wadden Sea)	Mon-Sat 9-17	Ruyslaan 92, 1796 AZ De Koog, 02228 - 741
Ossenzijl (Ov) "De Weerribben" (area of lakes and low peat in N.W. Overijssel)	13.30-16.30	Hoogeweg 27, 8376 EM Ossenzijl, 05617 - 272
Nederweert (NB) "Mijl op Zeven" (De Peel peat bog, S.E. North Brabant)	Apr-15 Sept, 9-18, Sat-Sun 10-18	Moostdijk 8, 6035 RB Nederweert, 04951 - 41276
ZUYDER ZEE REGION		
"Nieuw Land" Information Centre (Zuyder Zee works general; films)	10-17	Oostvaardersdijk, 8244 PH Lelystad, 03200 - 27799
IJsselmeer Polders Museum former island of Schokland (geology, biology, archeology)	Mon-Sat 9-17, Sun 10-18	Schokkeringweg, Ens, North East Polder, 05275 - 1396
Museum of Maritime Archeology	Mon-Sat 9-17, Sun 10-18	Vossemeerdijk 21, 8251 PM Ketelhaven, East Flevoland, 03210 - 3287
Zuyder Zee Museum (history of Zuyder Zee and environs)	Mon-Sat 10-17, Sun 12-17	Wierdijk 18, 1601 LA Enkhuizen, 02280 - 3844

N.B. The exhibition in Den Oever about the Afsluitdijk, referred to in the IDG Zuyder Zee/Lake IJssel Guide, was closed in 1978.

BOAT TRIPS/TOWNS		
Amsterdam – through canals and harbour	throughout the year	Rederij P. Kooy, Oude Turfmarkt 0/125, 1012 GC Amsterdam, 020 - 233810, and others.
Rotterdam – through the port	throughout the year	Spido Havendienst, Willemskade 14, 3016 DK Rotterdam, 010 - 171911
OTHER BOAT TRIPS		
(limited selection, further information from: National Tourist Bureau, Bezuidenhoutseweg 2, 2594 AV The Hague, 070 - 814191)		
Delta Region		
Grevelingen Lake, from Schaendijke	Mid May-Aug	ZWN, Grachtweg 23, 4301 KJ Zierikzee, 01110 - 3751
Haringvliet, from Rotterdam	Mid June-Mid Aug	Spido, Willemsplein 20, 3016 DR Rotterdam, 010 - 135400
from Willemstad	Apr-Sept	Otter, Pr. Christinastraat 61, 4797 HP Willemstad, 01687 - 2314
Eastern Scheldt from Burgsluis	Mid May-Aug	ZWN, Grachtweg 23, 4301 KJ Zierikzee, 01110 - 3751

PLACE AND INSTITUTION	OPENING TIMES	ADDRESS AND TELEPHONE NUMB.
Frisian Lakes		
from Drachten	Jul-Mid Aug	Kijlstra, De Tille 13, 9201 AH Drachten, 05120 - 12791
from Leeuwarden		Stad Dokkum, Tijnjekade 31, 8936 AB Leeuwarden, 05100 - 39290
from Sneek		Harder en van der Werf, 1e Oosterkade 6, 8605 AA Sneek, 05150 - 17314
Loosdrecht Lakes		
from Utrecht	Jun-Mid Aug	Rondvaartbedrijf Utrecht, Oudegracht t/o 85, 030 - 319377
from Loosdrecht	Mar-Oct	Wolfrat, Oud Loosdrechtsedijk 165, 1231 LV Loosdrecht, 02158 - 3309
Lake IJssel		
Urk-Enkhuizen	May-Sept	Eerste Urker Passagiers- en Vrachtdienst, Oslolaan 2, 8321 HE Urk, 05277 - 1320
Enkhuizen-Stavoren	May-Sept	Rederij NACO b.v., Leidsevaart 396, 2014 HM Haarlem, 023 - 319227

Addresses of organisations not mentioned above.

Amsterdam, Municipal Port Department	Havengebouw, De Ruyterkade 7, 1013 AA Amsterdam	020-221201
Central Bureau of Statistics CBS	Prinses Beatrixlaan 428, 2273 XZ Voorburg	070-694341
Department of Waterways, Delta Division, Information Department	van Veenlaan 1, 4301 NN Zierikzee	01110-2851
Government Service for Land and Water Use	Griffioenlaan 2, 3526 LA Utrecht	030-859111
The Hague, Municipal Information Centre	Groenmarkt 7, 2513 AL The Hague	070-624121
Ministry of Agriculture and Fisheries, Information Department	Bezuidenhoutseweg 73, 2594 AC The Hague	070-793911
Ministry of Culture, Recreation and Social Work	Steenvoordelaan 370, 2284 EH Rijswijk	070-949233
Ministry of Economic Affairs, Information Department	Bezuidenhoutseweg 151, 2594 AG The Hague	070-814111
Ministry of Housing and Physical Planning Information Department	van Alkemadelaan 85, 2597 AC The Hague	070-264201
Ministry of Public Health and Environmental Hygiene Information Department	Dr. Reijerstraat 8-12, P.O. Box 439, 2260 AK Leidschendam	070-209260
Ministry of Transport, Waterways and Communications Information Department	Plesmanweg 4, 2597 JG The Hague	070-747474
National Association for the Conservation of the Wadden Sea	Voorstraat 18, 8861 BK Harlingen	05178-5541
National Geological Service	Spaarne 17, 2011 CD Haarlem	023-319362
National Historic Buildings Conservation Service	Broederplein 41, 3703 CD Zeist	03404-28122
National Water Supply Institute	Nieuwe Havenstraat 6, Voorburg	070-694251
Netherlands Railways, Educational Information Department	Moreelsepark 1, 3511 EP Utrecht	030-353630
Recreation Foundation	Statenplein 1, 2582 EW The Hague	070-500100
Rotterdam, Municipal Information Department	Coolsingel 40, 3011 AD Rotterdam	010-179111
Royal Netherlands Geographical Society, KNAG	Linnaeusstraat 2A, 1092 CK Amsterdam	020-924949
Royal Netherlands Tourist Association, ANWB	Wassenaarseweg 220, 2596 EC The Hague	070-264426
Rijnmond Authority, Information Department	Vasteland 96-104, P.O. Box 23073, 3001 KB Rotterdam	010-111320
Soil Mapping Foundation STIBOKA	Staringgebouw, Marijkeweg 11, 6709 PE Wageningen	08370-19100
State Printing and Publishing House	Chr. Plantijnstraat, 2515 TZ The Hague	070-789911
Topographical Service	Westvest 9, 2611 AX Delft	015-120846
Utrecht, Municipal Information Department	Slachtstraat 12, 3512 BC Utrecht	030-328511
IJsselmeer Polders Authority, Information Department	Zuiderwagenplein 2, 8224 AD Lelystad	03200-99111

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IV – ABOUT THE I.D.G.

Errata – A number of corrections have to be made in two recent IDG publications.

– A Compact Geography of the Netherlands; third, revised edition, 1980.

The following corrections must be made to the map of the Zuyder Zee project (p. 13):

Proefpolder Andijk = Andijk Pilot Polder
Pilot polder = Markerwaard

There are also some inaccuracies on the map of Agricultural Means of Subsistence (p. 27):

in the Key –
Bulb District = Horticulture
Horticulture = Woodland, Heath, Dunes etc.

on the map –
Bollenstreek = Bulb District

in the bar diagram –
Horticulture % = Horticulture 4%.

On p.18, in the sentence "On 1st January 1978 11.1 per thousand of the population was 65 years or older", the words *per thousand* must be replaced by *per cent*. An errata page has been compiled of these corrections; the amendments to be made are given above for the benefit of anyone who has not received a copy.

In the various language versions of the new edition of the "Compact Geography of the Netherlands", as well as in the Dutch and English versions of the IDG Bulletin for 1978-79, an inaccuracy has unfortunately slipped in concerning the "Normaal Amsterdams Peil" (NAP = sea level). It is incorrectly stated there that this datum corresponds with the average *high water level* of the North Sea along the Dutch coast. Since NAP does not deviate more than a maximum of 4 centimetres from mean sea level (above at Flushing, and below at Delfzijl), it must be assumed that NAP corresponds more or less with mean sea level.

Annual Report for 1979 and activities during the first half of 1980.

The year 1979 was dominated by the celebration of the 15th anniversary of the foundation of the IDG. Although the Bureau has been functioning in the Geographical Institute of the State University of Utrecht only since April 1971, the decision to set up the IDG was taken as early as 21st September 1964. During the first seven years of its existence, its work was carried on without the aid of a bureau and full-time staff.

The anniversary was celebrated in two parts. At the beginning of September 1979, the IDG offered thirty foreign geographers from twenty-one countries a programme of meetings and excursions. In addition, a one-day conference was held for Dutch geography teachers. Versions were published in Dutch and English of a booklet written by Dr. H. S. Verduin-Muller and Mr. H. Meijer dealing with the first fifteen years of the IDG's existence. English and French versions of the booklet were also published by the Council of Europe.

During the calendar year 1979 a total of 1137 requests for information and/or documentation material was received at the bureau of the IDG, mainly in writing. The letters originated from fifty countries, with the neighbouring countries of the Federal German Republic, France, Belgium and the United Kingdom together accounting for 75%.

The IDG publishes, in close collaboration with the Ministry of Foreign Affairs, two series of information booklets, i.e. one with information about the geography of the Netherlands as a whole and one with information about particular regions.

In the first series there appeared in 1979 and the beginning of 1980 the Dutch, Danish, English, French, German, Japanese and Spanish versions of the third, completely revised edition of "A Compact Geography of the Netherlands". During the course of 1980 there followed the versions in the Italian, Portugese, Polish and Indonesian languages.

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The text of this new edition has been completely revised, which means that, in addition to bringing the statistics up-to-date, the section on physical planning in the Netherlands has been rewritten, now that not the Second Report on Physical Planning of 1966, but the Third Report (cf. p. 20) forms the basis of planning policy. In addition, a section on environmental problems has been added. All the maps have been redrawn and the booklet has been provided with a newly-designed cover.

In the early summer of 1980 the text was completed for the third IDG publication in the series of regional guides: *The Randstad Holland.* It seems likely that the Dutch version of this will be published in October 1980, followed at approximately two-month intervals by the English, French and German versions. *)
In addition to the IDG Bureau, the publications are obtainable on request from the Netherlands embassies.

Aims and activities.

For those readers who are making the acquaintance of the IDG for the first time through the medium of this Bulletin there follows finally, a summary of the IDG's origins, aims and activities.

The Information and Documentation Centre for the Geography of the Netherlands is a non-profit making body, whose aim is to supply information and documentation about the geography of the Netherlands to institutions and bodies outside the Netherlands concerned with education, study and information, in the widest sense, about that country.

The idea of establishing such centres derived from a conference about the correction of geography school textbooks, held in Ireland in 1963 under the auspices of the Council of Europe. The Centre has been functioning since 21st September 1964. Under the pressure of circumstances (a parliamentary question about incorrect statements about the Netherlands in a foreign geography textbook) activities had to begin before a definitive form of organisation had been worked out. On 9th December 1969 the Centre became a foundation and, on 1st April 1971, the Bureau of the Centre, established in the Geography Department of the University of Utrecht, was able to begin operating. The necessary funds for the functioning of the Bureau derive from an annual subsidy of the Ministry of Education and Science; publications, exhibitions, conferences etc. are largely financed by the Ministry of Foreign Affairs.

The work done so far can be divided into a number of categories:

- replying to letters from all parts of the World. The letters contain a great variety of requests for information about the geography of the Netherlands, as well as for the supply of visual material, for addresses or assistance in the preparation of field excursions.
- the reception of foreign geographers preparing, for example, a publication about the geography of the Netherlands or a field excursion. The Bureau offers, inter alia, the possibility of consulting a bibliography of foreign language publications about the geography of the Netherlands and a modest collection of photographs.
- the compilation of information in different languages (brochures, guides, wall map, bulletin; see page 56), in collaboration with the Ministry of Foreign Affairs.
- the compilation of a bibliography of foreign language publications, principally published since 1945, about the geography of the Netherlands. Lists have been compiled for distribution of the titles in the English, French and German languages contained in the bibliography. There is also a list of literature in the Dutch language. In addition, a card index has been made of all the visual material (maps, photographs, films etc.) illustrating the geography of the Netherlands.
- the organisation of bilateral conferences on the mutual revision of geography teaching material.
- attempting to publicise the Centre's existence and mode of operation among as wide as possible a circle of foreign geographers.

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*) For a complete list of current IDG publications please see the Bibliography on p. 55 of this Bulletin.

Note to authors and publishers of geography teaching aids.

Authors and publishers of geography teaching aids are an important group of "clients" of the IDG, in view of the wide circulation of the information they supply. It sometimes appears, in dealing with requests for collaboration on the part of this group, that after they have received assistance once or twice, they hesitate, perhaps from a sense of modesty, to make further calls on the IDG. To take a specific example which occurred during the past year, an author was sent photographs and maps at his request and the IDG also offered to go through the manuscript of his chapter on the Netherlands in due course. For some reason the offer was not taken up. When the book appeared the chapter on the Netherlands proved to contain no less than 42 greater or lesser inaccuracies.

Without wishing in any way to obtrude, the IDG would like to feel that its friends will not let the opportunity slip to request information and documentation material and send in their manuscripts for correction, for it is obviously far more effective to provide information and correct texts before publication than to pick up inaccuracies afterwards in published works.

Appendix 1

BIBLIOGRAPHY

Recent publications on the geography of the Netherlands.

Amsterdam; Statistics of the port (annual)
Municipal Port Authority of Amsterdam

Berggren, H. –
The construction of the storm surge barrier in the Eastern Scheldt
in: Rotterdam/Europoort/Delta, (1980) no. 6, p. 39-47.

Boer, A. –
A system of National Parks in the Netherlands
in: Parks, 3 (1978) no. 1, p. 9-12.

Central Bureau of Statistics
- Bevolking der gemeenten van Nederland op 1 januari 1980; 88 pp., Price: Hfl. 10,–
  (Population of the municipalities of the Netherlands, 1st January 1980) *
- Regionaal Statistisch Zakboek 1980; 240 pp., price: Hfl. 25,–
  (Regional Statistical Review, 1980)
- Statistical Yearbook of the Netherlands 1979; 370 pp., price: Hfl. 53,50 *
- Statistisch Zakboek 1980; 380 pp., price: Hfl. 16,–
  (Pocket Yearbook 1980) *
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6x per year; partly in English.
Subscription rate: Hfl. 87,–
Royal Dutch Geographical Society (KNAG), Mauritskade 63, Amsterdam.

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4x per year; in English
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Atlases

- Meulenhoff-Educatief b.v.
Schoolatlas for secondary and further education,
Amsterdam, 1978, price: Hfl. 42,50.

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Topographical Maps

Topografische Dienst, Westvest 9, Delft.

- Scale: 1:10.000
only in black-and-white; price: Hfl. 13,00
- Scale 1:25.000 and 1:50.000
in black-and-white, price: Hfl. 4,70
in multi-colour print, price: Hfl. 8,40
See page 59.

Transparencies

FIBO-Beeldonderwijs, Zeist: Series of colour-transparencies (textbooks in Dutch)

- De Zuiderzeewerken (20)
- Deltawerken (31)
- Waddenzee en Waddenland (Wadden Sea Area, 48)
- De Randstad Holland (40)
- Rotterdam (25)
- Amsterdam (26)
- Het Polderland (20)
- Langs de grote rivieren (the big rivers; 20)
- De kustduinen (the dunes; 20)
- Zuid-Limburg (20)
- De kust (the coast; 60)
- Laag-Nederland (Low-Netherlands; 60)
- Onze waterwegen (waterways; 60)
- Ons drinkwater (our drinking water; 15)

The prices vary between Hfl. 20,– and Hfl. 60,–
For copyright and orders: FIBO-beeldonderwijs, Utrechtseweg 66-68, Zeist.

IDG, Utrecht
The geography of the Netherlands in pictures
Series of 36 colour transparencies with explanatory text; 1981
Obtainable from IDG, Utrecht; price Hfl. 40,–.

Meulenhoff-Educatief Amsterdam
- Series of colour-transparencies (aerial photographs) accompanying the textbook "De Geo Geordend",
III. 200 transparencies; price: Hfl. 243,25.
Textbook (in Dutch): price: Hfl. 32,25.

Polyvisie, colour slide series:

- What is happening to the Wadden Sea? (72 slides)
- The water supply of the Netherlands (44)
- Threatened landscapes (Tape slide presentation, 96 slides with tape cassette)
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- Dike construction (12)
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- The blast furnaces (12)
- Netherlands Railways (12)

Prices vary from Hfl. 11,50 to Hfl. 130,00, depending upon the number of slides.
For copyright and orders: Polyvisie, 's-Gravelandseweg 78a, Hilversum.

Transparencies for the overhead-projector

IVAC, Brussels.

- Transparencies for the overhead-projector, series no. 4005, comprising the following parts:

1. Land uit zee (land reclamation, 5 transparencies)
2. Nederland; bevolkingsexplosie (growth of population; 4)
3. Tot voor 30 jaar overwegend een landbouwland (agricultural economy; 5)
4. Groeiende industriestaat sinds WO-II (industry; 5).

Wall Maps

Van Goor, Zonen, The Hague

- Staatkundige kaart van Nederland (The Netherlands; provincies); 1:275,000. price: Hfl. 165,–
- Bedwongen waterland (water control, polder); 85x115 cm., price: Hfl. 74,50
- Threatened waterland (lake reclamations, Zuider Zee works, Delta Plan etc.) 85x115 cm. (with teachers' notes), Hfl. 95,75.

IDG/Ministry of Foreign Affairs

- Wall Map of the Netherlands, 1:325,000 (types of landscape).

Wolters-Noordhoff, Groningen

- Tweede Wandkaart van Nederland; 1:200,000 (Wal Map, types of soil) Hfl. 236,–
- Derde Wandkaart van Nederland; 1:200,000 (Wall Map, land use); Hfl. 236,–

- Regiokaarten (regional maps, 110x140 cm):

– Noord-Nederland	Hfl. 129,25
– Randstad Holland	Hfl. 129,25
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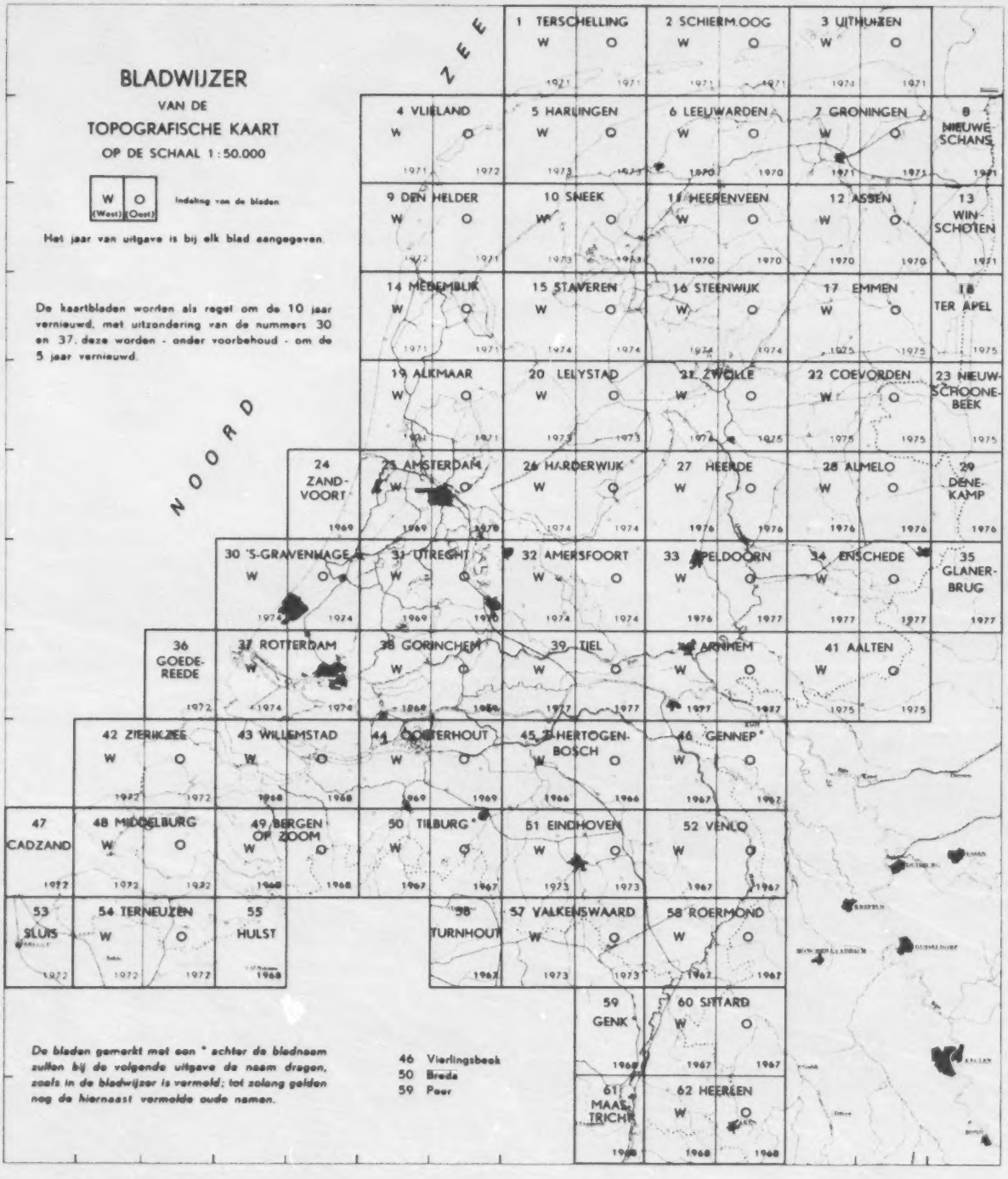
Appendix 2



Each of the lettered sections is a sheet in the 1:50,000 map series; each of these sections covers 4 sheets of the 1:25,000 series. The 1:50,000 map sheets are also available from the Topografische Dienst as "Waterstaat" (Water Control) maps, Geological maps (not yet complete) and Soil maps (not yet complete).

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